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# Land Transport Rule - Setting of Speed Limits [2017]

A joint submission by Local Government New Zealand, the Road Controlling Authorities (RCA) Forum and the Transport Special Interest Group (TSIG) to the New Zealand Transport Agency

23 June 2017

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## We are. LGNZ.

LGNZ is the national organisation of local authorities in New Zealand and all 78 councils are members. We represent the national interests of councils and lead best practice in the local government sector. LGNZ provides advocacy and policy services, business support, advice and training to our members to assist them build successful communities throughout New Zealand.

This submission is endorsed under delegated authority by Malcolm Alexander, Chief Executive, Local Government New Zealand.

LGNZ has coordinated with the Road Controlling Authorities Forum (New Zealand) Incorporated (RCAF or RCA Forum) on this submittal. The RCA Forum is a closed, non-political incorporated society of road asset managers and roading professionals from all territorial local authorities, the Department of Conservation and the New Zealand Transport Agency. LGNZ also coordinated with the LGNZ Regional Sector's Transport Special Interest Group (TSIG), which has the objective of being a forum supporting a collaborative effort by regional councils, unitary authorities and Auckland Transport to improve the quality and performance of the land transport system in New Zealand.

Further LGNZ, the RCA Forum and the TSIG also engaged with the New Zealand Local Authority Traffic Institute (Trafinz) and communicated with the Institution of Professional Engineers New Zealand (IPENZ).

## Introduction

Thank you for the opportunity to submit on the Land Transport Rule Setting the Speed Limits ([2017] ("Rule"). The parts of the Rule of particular interest are those clauses that provide guidance to a road controlling authority and to the Agency in the performance of their separate roles in accordance with the Rule.

LGNZ, the RCA Forum and TSIG ("Joint Submitters") largely agree with the changes made to the Rule. However, there are several issues that we believe require greater clarification or revised language. Where appropriate, we have provided alternative language or recommendation.

In this submission we provide comment on the Rule in the following order:

- Intent of the Rule changes;
- Summary of proposed Rules changes, noting where agreement/support exists;
- Minor changes to the Speed Setting Regime; and
- Recommended changes within the text of the Rule (with explanation)/

It has been noted by the Joint Submitters that the Transport Agency would prefer to obtain feedback that considers:

- What impact would the proposals have, and on whom (particularly on any costs of implementing the proposals);
- Any groups or individuals, in particular, be disadvantaged by the proposals, and how;
- Any groups or individuals, in particular, benefit from the proposals, and how; and

- Any implementation or compliance issues that would need to be considered.

The Joint Submitters will address these points first.

### Impact feedback

**Question:** What impact would the proposals have and on whom?

RCAs will incur costs to implement the proposed Rule. The use of the bylaw process to effect the speed limit changes is time intensive and costly. The added costs to authorities in respect to consulting on the bylaw changes need to be funded through National Land Transport Plan (NLTP). The Agency should allow for additional funding for speed management work under the NLTP activity classes:

- WC 151 Network Management;
- WC 341 Minor improvements; and
- WC432 Road safety promotion – engagement, education and consultation.

The proposed Rule should enable RCAs to develop Speed Management Plans as an alternative method of consultation with key stakeholders and the community on speed management activities, including speed limit changes. A Speed Management Plan could set out the proposed speed management activities (including ongoing education and engagement, engineering works and speed limit changes) that an RCA proposes to undertake for a three-year period to link into the Long-Term Plan (LTP) development process. Consultation could be undertaken on this document so that funding for speed management activities would be integrated into the LTP. The RCA could then complete the necessary work throughout the three-year period and implement the speed limit changes by a council resolution, rather than through the full Special Consultative Procedure for each change.

**Question:** Would any groups or individuals in particular be disadvantaged by the proposals and how?

Mana whenua are not listed as parties to be consulted when RCAs are reviewing and setting speed limits. Iwi authorities have knowledge pertaining to some locations that RCAs do not. There are situations where Maori settlements have been separated by a road installation from adjacent natural features of cultural importance in the past.

**Question:** Would any groups or individuals in particular benefit from the proposals and how?

RCA's will benefit from the provision of key data on safe and appropriate speeds (Section 4.3(1)) and information to assist in prioritising where to achieve safe and appropriate speeds (4.3(2)) and the removal of costs associated with the collation of data to comply with the Speed Limits NZ requirements (including speed surveys and rating sheets).

**Question:** Are there any implementation or compliance issues that would need to be considered?

The bylaw process is still required and this will continue to require negotiations to make bylaw changes for roads that cross district boundaries.

It is unlikely that locally maintained Speed Limit Registers will meet national needs. Most RCAs have registers of local speed limits in the form of schedules to the appropriate bylaw. For some urban and metropolitan RCAs, these schedules are extensive. As an example, Hamilton City has implemented a large number of speed limit changes that are recorded in the Speed Limit Bylaw and its associated schedules. The whole city is defined as an 'Urban Traffic Area' and hence any speed limits other than

50km/h have to be captured in the schedules.

The introduction of over 390 permanent 40km/h speed limits in Hamilton's local residential areas, and variable 40km/h speed limits for all schools, has meant that the bylaw is now 52 pages in length. This document doesn't currently capture all of the speed limits that have been superseded by these new limits, which would in turn result in an approximate doubling in the document's page length.

While a copy of this bylaw is maintained on the HCC website, it is unlikely that many members of the public are aware of it or would make use of this facility. In addition, every RCA holds this data in different formats and in different locations. The impending arrival of self-drive vehicles will require the need for a centralised national register that provides a better level of service for the NZ Police and the public, while also ensuring that we have key information in a format that is up-to-date and accurate for the future needs of this type of information.

## Intent of Rule Changes

The design of the proposed Rule enables key elements of this new approach to speed management. The participants to this submittal agree with the following intended outcomes:

- the Transport Agency will provide guidance to RCAs on how to set safe and appropriate speeds for roads within their respective jurisdictions and that RCAs must have regard to this guidance when reviewing speed limits ; and
- encouragement of a consistent approach to speed management throughout New Zealand; and
- replacement of the Speed Limits New Zealand (SLNZ) methodology with assessment criteria and outcome statements based on the approach in the Guide.

## Summary of Rule Changes

### Preface

Support or opposition to the following proposals is premised on detailed analysis of the proposed Rule. Further, in review of the summary comments on the following Proposals, reference must be made to comments and recommendations provided to the section and clause comments also provided.

### Proposals

#### Proposal 1

Establish a new speed-setting mechanism that focuses on assisting RCAs to achieve safe and appropriate travel speeds, in particular for areas where there are high benefit opportunities to optimise safety outcomes, economic productivity or both.

- Agree with a new requirement for the Transport Agency to supply safe and appropriate speed information to RCAs, and prioritise information about roads where achieving safe and appropriate speeds is likely to deliver the highest benefits in terms of safety outcomes, economic productivity, or both.

- Agree that it is appropriate to replace the Speed Limits New Zealand (SLNZ) with a set of mandatory criteria in the proposed Rule that the Transport Agency must consider when developing safe and appropriate speed information and that RCAs must have regard to when reviewing speed limits.

### Proposal 2

Enable the setting of a 110 km/h speed limit on roads where it is safe and appropriate to do so.

- Support enabling the setting of a 110km/h speed limit on roads where it is safe and appropriate to do so.

### Proposal 3

Allow for a more flexible, efficient and outcomes-based approach to the requirements for permanent repeater speed limit signs.

- Support allowing for a more flexible approach for speed limit signage requirements, where RCAs will not be required to place repeater speed limit signs at the prescribed minimum distances apart in certain circumstances. Some consideration toward tools or mechanisms to ease the use of signage should also be considered, such as a “rural speed zone” for large areas where repeater signage may be redundant and expensive.

### Proposal 4

Enable an RCA to set emergency speed limits on roads directly and indirectly affected by an emergency.

- Support the approach to enable RCAs to set emergency speed limits where an emergency has affected the use of any road and has caused a risk of danger to the public or a risk of damage to a road. Examples of an emergency situation include earthquake, tsunami, land movement, flood, storm, or technological failure.

### Proposal 5

Clarify the grounds upon which an RCA may set a temporary speed limit.

- Support clarifying the grounds upon which an RCA may set a temporary speed limit.

### Proposal 6

Approval from the Transport Agency is required before an RCA may set a speed limit of 70 km/h on a road.

- Does not support a new requirement for an RCA to get approval from the Transport Agency before it may set a new 70km/h speed limit on a road.

### Proposal 7

Require an RCA to notify the Transport Agency of any proposal to set a speed limit of 70 km/h, 90 km/h, 110 km/h, or a variable speed limit.

- Support the requirement for RCAs to notify the Transport Agency of any proposal to set a variable speed limit or a speed limit of 70 km/h, 90km/h, or 110km/h before carrying out the process of setting a speed limit, as provided by clause 2.3.

## Additional comments on the Proposals

### Proposal 1

- RCA's and their councils often work closely with regional and central office representatives of NZTA. As such, there is generally close alignment and understanding of road safety and speed management objectives. However, RCAs manage roading infrastructure owned and maintained by councils and, as such, are responsible for best understanding economic and social impacts from a reduction or increase in transport speed.
- There is an implication contained in several clauses of the proposed Rule that the Agency will possess a better understanding of the safe and appropriate speed for a local road than the responsible RCA. This is unlikely to be the case. In the case of Ruapehu District, to take one example, the Agency speed maps provide safe and appropriate speeds for secondary collector roads and above, representing just 6 per cent of the local network.
- In addition to safety and economic productivity, however, for many RCAs an important consideration is the role of speed limits on street amenity and in encouraging active modes. The *Speed Management Guide* captures these interests under Objective 1.1.1, "to manage speeds that are appropriate for road function, design, safety, use, and the surrounding environment (land use)" and wording similar to this should be included under the definition of "safe and appropriate" in the proposed Rule to make the intention of the Rule clearer.

### Proposal 2

- There is no quantification of travel time benefits and safety costs in the 'Regulatory Impact Statement' supplied with the Draft. The Overview Document simply says that the benefits are reduced journey times and that the estimated benefit cost ratios are marginal for some individual road sections tested. Similarly on the issue of safety, the Document says that the main risk of an increase to 110km/h travel speeds is that if there is a crash, the impact speeds could be higher, which could result in greater trauma. An increase in the open speed limit, as seen in 1985, was accompanied by a notable increase in rural fatalities and injuries relative to their urban counterparts<sup>1</sup>.
- Under the Paris Agreement, New Zealand has undertaken to reduce its emissions by 30 per cent below 2005 levels by 2030. There is no reference to the potential increase in emissions from a 110km/h speed limit.
- A report prepared by the Otago Medical School<sup>2</sup> drawing on the Vehicle Emissions Prediction Model (VEPM) developed by the Transport Agency and Auckland Council has found a relationship between increased speed and increased emissions. A change of speed from 96.36 km/h to 100 km/h in the average speed of the New Zealand motor fleet would result in an overall increase in vehicle emissions of a 4.35 per cent increase in CO, 1.82 per cent increase in CO<sub>2</sub>, 2.35 per cent increase in NO compounds and 5.83 per cent increase in particulate matter. These findings extrapolated suggest that an increase of 10 km/h to 110 km/h would at least double the increase in these emission levels.
- It can be expected that, with trucks limited to 90 km/h, cars will accelerate and decelerate more frequently and actual emissions would be higher.
- Two recent research reports have highlighted the effects of an increase in speed, although they were

<sup>1</sup> Koory G, & Frith W, Changing Rural Speed Limits: Learning from the Past, IPENZ Transportation Group Conference, 29-31 March, 2017.

<sup>2</sup> McLean R, et al, Bringing You Up to Speed: A Health and Economic Model of the Effects of Raising the Speed Limit on New Zealand State Highways and Motorways from 100km/h to 110km/h, University of Otago, Wellington, (2012).

assessing the benefits and costs of reduced speeds. A study of perceptions of travel time savings found drivers overestimate the time saving at high speed and underestimate the time savings at lower speeds.<sup>3</sup> A study of travel time and fuel consumption found reducing maximum speed from 100km/h to 80km/h reduced mean speed by 8 per cent to 12 per cent, increased travel time by 9 per cent to 13 per cent and decreased fuel consumption by 14 per cent to 15 per cent.<sup>4</sup>

- The de facto 10km/h tolerance means that speeds of 120km/h on expressways could be driven with impunity. HCVs still restricted to 90km/h would result in a significant speed differential, particularly at on-ramps. An increase in speed for HCVs is not supported.
- NZ Police find it increasingly difficult to patrol the modern expressway network, with long distances between ramps and continuous median barriers. Increased speed limits need to be supported by remote detection systems, such as point-to-point speed cameras, being integrated into the prerequisites for such speed limits.

### Proposal 3

- While the proposal is supported in principle, it highlights the contradiction between the stated purpose of the Rule to assist RCAs to achieve safe and appropriate travel speeds and the retention of default speed limits. Under the requirements of the draft Rule Table 1, for example, one RCA will need 360 repeaters on 950km of rural road. More than one RCA has calculated that much of its rural local road network should be 80km/h, but this may not be self-evident for much of it.
- Considerable uncertainty remains on when the requirement for repeaters would apply, as clause 9.2(2) relaxes the requirement where the nature of the particular length of road is such that a road user would reasonably understand that the speed limit displayed on the last speed limit sign remains the speed limit throughout the whole of that length of road. “Reasonably understand” is a very imprecise measure and case law suggests that it should be used with caution in regulations.
- Agency speed maps indicate that most of the rural network has a safe and appropriate speed of 80 km/h or less, creating a requirement for repeater signage that is financially burdensome for smaller rural RCAs, primarily as a result of leaving the default rural speed limit at an unsafe and inappropriate 100 km/h.
- Signage maintenance costs for road signs resulting from vandalism and vehicle damage also a present significant cost to the network funders, so any reduction in signage assets would present savings. Repeater signs in rural areas may also be dangerous if placed in accordance with a fixed separation requirement that does not reflect the local situation, where actual travel speeds may be less than the posted limit, such as winding roads which result in deficient safe stopping sight lines and unsafe driving behaviour.
- In some circumstances, however, urban areas should contain more than one repeater sign, unless the stretch of urban area is particularly short, as this reinforces the speed limit and encourages drivers to slow down in the urban area.
- If the default rural speed limit is retained at 100 km/h, where extensive areas of a local rural network are proposed to have an 80km/h speed limit a “Special Rural Area” (as provided by clause 3.5 for an Urban Area) should be available to the RCA to “propose a speed limit that is other than 100km/h for *all roads* in that area” and exempt such areas from the repeater requirements of Table 1 as in Urban Areas.

<sup>3</sup> Rowland T, & McLeod D, Travel time savings and speed: actual and perceived, May 2017, NZTA Research Report 568

<sup>4</sup> Rowland T, & McLeod D, Time and fuel effects of different travel speeds, May 2017, NZTA Research Report 582

#### Proposal 4

- The length of the restriction relating to Emergency Speed Limits should be determined using the consultation processes provided by the Rule, rather than defaulting to six months. Six months is a very tight timeframe for an RCA to work through the full bylaw process if it needed to change the speed limit, noting that that the RCA would be likely to take this opportunity to include other speed limit changes in the process in order to minimise costs, and is equally tight for securing the funding and completing works to remedy the circumstances that gave rise to the need for Emergency Speed Limits.
- The criteria for the repeater signs for Emergency Speed Limits, which by their very nature are probably self-explaining and operating at speeds that are within 10 per cent of the speed limit, should also be re-assessed.

#### Proposal 5

- The criteria for setting a Temporary Speed Limit restrict the ability of a RCA to respond to some unsafe road situations, such as at some rural intersections or during inclement weather where there may be intermittent surface water, or obscured road marking or signage. The criteria in 6.1(2) (a) does not capture these type of situations. Some RCAs also have intersections or road alignments that they consider to be unsafe at the present default limit and are posting a Temporary Speed Limit until such time as they have the finance to carry out remedial works. These situations need to be included in the criteria in the Draft Rule at 6.1(2)(a).

#### Proposal 6

- There is a contradiction between the stated purpose of the Rule to assist RCAs to achieve safe and appropriate travel speeds and a presumption that some speed limits require specific approval. There should be no difference in the approval process for 70 km/h, given the presence of a wide range of speed limits between 10 km/h and 110 km/h.
- The desire to introduce a “60/80/100” speed regime does not appear to be well founded. This cannot logically proceed from a default urban speed limit of 50 km/h or include a 110 km/h maximum limit.
- In support of the approach to dividing speed limits into multiples of 20km/h, the Overview Document states that “at higher travel speeds, people have trouble differentiating speed limit differences of just 10km/h”. This statement is not supported by evidence and is contrary to the speed enforcement threshold of 4km/h, which has demonstrated that a speed difference of 4km/h is discernible.
- There will be circumstances where 70km/h is the appropriate balance between efficiency and safety, where 10km/h more is enough to render a stretch of road unsafe for road users, and 10km/h less is an inefficient use of the road. The local RCA will know its local roads very well, it will know driver behaviour very well within its district, and it will know how to apply national guidelines in a local context to achieve safe and appropriate speeds.

#### Proposal 7

- Requiring a RCA to notify the Transport Agency of any proposal to set a speed limit of 70 km/h, 90 km/h, 110 km/h, or a variable speed limit, implies that such speed limits might not be safe or appropriate and that the consultation required by the Rule would not be adequate.
- There should be no difference in the process for 70 km/h, 90 km/h, 110 km/h or variable speed limits, given the presence of a wide range of speed limits between 10 km/h and 110 km/h, if the processes provided by the Rule identify the safe and appropriate speed for the road.

- There is significant discrepancy between the wording of the proposal, which requires a RCA to notify the Transport Agency, and proposed rule 5.2(1) which states that the RCA “must obtain approval from the Agency...”. The proposal is misleading.
- The proposed Rule does not standardise speed limits to 20km/h increments, as it would allow for limits of 50 km/h, 60 km/h, 80 km/h, 100 km/h and 110km/h, retaining separations of 10km/h between some limits. Speed differentiation of 20 km/h increments from a default urban speed limit of 50 km/h delivers speed limits of 70 km/h and 90 km/h, not the “60/80/100” speed regime apparently sought. Any scenario which realises 20km/h increments must exclude either 100km/h or 50km/h. The current proposal fails because it proposes to continue to use 50km/h, and allows for 110km/h, both of which is contrary to the assumption that “people have trouble differentiating ... 10km/h”.
- Road users are able to distinguish speeds of as little as 4km/h according to Police enforcement and can certainly distinguish speed limit brackets of 10km/h. The proposed removal of 70km/h and 90km/h speed limits, and the requirement to gain approval from the Transport Agency for setting such speed limits, is totally at odds with the stated purpose of these changes presented in the Overview Document.

## Minor Changes to the Speed Setting Regime

The Joint Submitters agree with the majority of the suggested minor changes. However, it recommends using and referencing definitions already defined in the Land Transport Act 1998. Reuse in this document assists with adding context and eliminates referencing another text.

The specific mention of motorcyclists should be extended to include cyclists and pedestrians as other, and more, vulnerable road users.

## Recommended changes within the text of the Rule (with explanation)

### Section 2 General Procedure

It is unclear whether the proposed new Rule makes it easier to introduce lower speed limits where desired (particularly based on community feedback). As such, streamlining measures and implementation of the Safer Journeys National Road Safety Strategy must be transparent for Road Controlling Authorities (RCAs), or successful outcomes may be limited.

Under the proposed new rule, there appears to be no requirement for RCAs comparable with clause 3.2(7) of the 2003 Rule, where a RCA was obliged to review a speed limit if there was “a significant change in the nature, scale or intensity of land use adjacent to a road” or “a significant change in a road, its environment or its use.”

Under Section 3.2(8) of the previous Rule, there was also the ability for a RCA to review a speed limit if it received “a written request to do so from a person, organisation or road user group affected by that speed limit”. That ability does not appear to be available to RCAs under section 2 or section 4, which is a very important democratic right .

**Recommendation:** Retain previous obligations of RCAs to review speed limits when the road environment significantly changed or when requested by a third party.

Proposed clause 2.1 frustrates the stated purpose of the Rule to produce a nationally-consistent and evidence-based approach to speed management and provide a mechanism for road controlling authorities to set safe and appropriate speed limits for roads in their jurisdictions. Proposed subclause 2.1(2)(a) permits a speed setting mechanism that is not otherwise intended by the Proposals. The New Zealand Transport Agency (“Agency”) should be able to cancel a speed limit that has not been set in compliance with the Rule, but should under no circumstances have the authority to change or modify the application of speed limits that have been set in accordance with the Rule.

**Recommendation:** Delete subclause 2.1(2)(a).

Under clause 2.3(2), it is unclear why the chief executives of the New Zealand Automobile Association Incorporated and the Road Transport Forum New Zealand continue to be explicitly included in the list of persons who must be consulted. This perpetuates a focus on motorised travel over non-motorised travel. Without explicit mention of a wide range of road user groups, previous consultations on speed limits have been known to be unsuccessful in obtaining feedback from active travel modes. The AA and RTF are covered by subclause 2.3(2)(h) and regulations should not extend special recognition to specific advocacy organisations, especially as for Auckland and most of the upper North Island, for example, the main industry body for commercial transport is National Road Carriers, rather than RTF.

**Recommendation:** Remove explicit mention of the NZAA and RTFNZ in clause 2.3(2).

The list of persons in clause 2.3(2) should include mana whenua. This is because Iwi authorities have knowledge pertaining to some locations that RCAs do not. This would be a simple check mechanism to ensure that Maori needs have been appropriately included. For example there are situations where Maori settlements have been separated by a road installation from adjacent natural features of cultural importance.

**Recommendation:** Clause 2.3(2) be amended to include mana whenua in the parties that are consulted when RCAs are reviewing and setting speed limits.

Clause 2.3(2) separately requires consultation with road controlling authorities that are responsible for roads that join, or are near, the road on which the speed limit is to be set or changed and a territorial authority that is affected by the existing or proposed speed limit. It is unclear that any circumstance would exist where proposed subclause 2.3(2)(a) would not adequately apply, while the proposed subclause (b) is unnecessarily imprecise.

**Recommendation:** Delete subclause 2.3(2)(b).

Clause 2.3(3) requires that a RCA must allow a reasonable time for persons consulted under subclause (2) to make submissions on the proposed speed limit. “A reasonable time” is imprecise and provides no guidance for RCAs and no measure against which to judge compliance for the Agency.

**Recommendation:** Amend subclause 2.3(3) to require a specified period, such as no less than 20 working days.

Clauses 4.2 to 4.4 outline the data now to be provided to RCAs by the Agency, but clauses 2.3 and 2.4 are silent on what information must be made available to parties consulted with.

**Recommendation:** Clarify what data should be provided during consultations.

Clause 2.5(5) requires that a RCA must retain an existing speed limit if that speed limit is the safe and appropriate speed limit for the road. This clause needs to be clarified to indicate that the mechanism provided by the proposed Rule is the means of establishing that the speed is safe and appropriate.

**Recommendation:** Amend clause 2.5(5) so that it is clear that a RCA must retain an existing speed limit if, following review and consultation, a road controlling authority decides that speed limit is the safe and appropriate speed limit for the road.

Clause 2.8(7) allows the Agency to exercise the responsibilities of a RCA under this Rule and change or modify the application of a speed limit, by notice in the Gazette, if a RCA does not comply with directions given under 2.8(4), 2.8(6), or 9.7, or the requirements of 6.2(7) or 7.2(7). Proposed clause 2.8(7) frustrates the purpose of the proposed Rule to produce a nationally-consistent and evidence-based approach to speed management and provide a mechanism for RCAs to set safe and appropriate speed limits for roads in their jurisdictions. The proposed clause permits a speed setting mechanism that is not otherwise intended by the Proposals. No RCA has the ability to change a speed limit by notice in the Gazette; for the Agency to exercise the responsibilities of a RCA under this rule it would need to change a speed limit using the process provided by Section 2.5. The Agency's role as regulator should be only to ensure compliance with the proposed Rule, not to set local speed limits itself.

**Recommendation:** Delete the reference in clause 2.5(5) to the Agency exercising the appropriate responsibilities of a road controlling authority under this Rule and being able to change or modify the application of a speed limit and clarify that the Agency may cancel any change not made in compliance with this Rule, by notice in the Gazette, if a RCA does not comply with directions given under 2.8(4), 2.8(6), or 9.7, or the requirements of 6.2(7) or 7.2(7).

Subsequent references in clauses 2.10 and 2.11 to speed limits changed or modified by the Agency are inappropriate for the same reason.

**Recommendation:** Amend clause 2.10 and 2.11 to remove references to the Agency being able to change or modify the application of a speed limit made in accordance with the Rule.

### Section 3 Categories of, range of, and default speed limits

Proposed clause 3.2 frustrates the intent of the proposed Rule for RCAs to set speed limits and the Agency to provide guidance. The Agency should be able to cancel a speed limit that has not been set in compliance with the Rule, but prior approval should not be required for the application of speed limits that have been set in accordance with the Rule. More specifically, a speed limit of 70 km/h reflects a change of 20 km/h from 50 km/h and a speed limit of 90 km/h reflects a change of 20 km/h either from 110 km/h or from 70 km/h. Speed limits of 70 km/h are already in place and the Rule should not presume that limits of 70 km/h or 90 km/h would not be the safe and appropriate speed or that a road for which such a speed is safe and appropriate should be altered to allow a different speed limit to be set.

**Recommendation:** Remove references to speed limits of 70 km/h, 90 km/h or 110 km/h being able to be set only following approval by the Agency.

Subclause 3.3(1)(a) requires that road for which a speed limit is set under this Rule must be of a reasonable and safe length. It is unclear what a "reasonable length" of road is. As such, this subclause provides no guidance for the RCA or the Agency in what would constitute compliance and

is made completely redundant by subclause 3.3(1)(b) which sets the minimum lengths in accordance with a table in Schedule 1.)

**Recommendation:** Delete 3.3(1)(a).

Clause 3.1 refers to, and clause 3.4 sets, default urban and rural speed limits. The removal of the definitions for a “rural speed limit” and an “urban speed limit” (previously defined as a speed limit of 100 km/h and 50 km/h respectively), should have sent a message that different rural and urban roads warrant different limits to the traditional defaults, but that approach is negated by the specification in clause 3.4 of default urban and rural speed limits. More specifically, the inappropriateness of a default rural speed limit is self-evident in clause 3.4(2), which says the rural speed limit is 100 km/h and applies to any road that is a motorway and any road that is not within an area designated as an urban traffic area, so capturing every scale of road outside an urban traffic area.

**Recommendation:** Reconsider specifying default urban and rural speed limits.

Clause 3.5 allows a RCA to set an urban traffic area. Where extensive areas of a local rural network are proposed to have an 80km/h speed limit a “Rural Traffic Area” should be available to the RCA to “propose a speed limit that is other than 100km/h for all roads in that area” and exempt such areas from the repeater requirements of Table 1, as in urban traffic areas.

**Recommendation:** Allow RCAs to propose and set a rural traffic area with a speed limit applying to all roads within that area.

#### Section 4 Permanent, holiday, and variable speed limits

Two completely different matters have become confused in Section 4 of the Draft Rule. Clause 4.1 is incorrect as the subject matter of this clause and clause 4.2 addresses safe and appropriate speed information and the responsibilities of the Agency, rather than permanent, holiday, and variable speed limits. Separating the two subject matters into two sections will create a new Section 5, with consequential changes to subsequent section numbering, to give greater clarity.

**Recommendation:** Consider placing clauses 4.2 and 4.3 under a new Section 4 Safe and appropriate speed information, and placing subclause 4.1(3) with clauses 4.4, 4.5 and 4.6 under a new Section 5 Permanent, holiday, and variable speed limits.

Clause 4.3 requires that the Agency must supply to each RCA information about the safe and appropriate speed for roads within that RCA’s jurisdiction, or a RCA may request this information from the Agency. This information needs to be publicly available and reasonably accessible for the community.

**Recommendation:** Consider adding a provision to ensure that the safe and appropriate speed information for each jurisdiction is publicly and readily available.

Under clause 4.6, a RCA may set permanent, holiday, or variable speed limits and must aim to achieve “a mean operating speed less than 10% above that speed limit”. This is a significant departure from the 2003 Rule, which assumed the mean operating speeds should seek to match the posted speed limit. This margin could allow mean operating speeds of 10 km/h above the posted speed for a 110km/h road. The rationale for aiming for a mean operating speed limit of up to 10 per cent above the safe and appropriate speed limit for high-speed roads is unexplained, as this may be significantly higher than the design speed of the road and hence increase the risk of crashes. If the mean

operating speed is up to 10 per cent above the speed limit, the 85<sup>th</sup> percentile speeds will be even higher.

Similarly, requiring lower speed roads to have a smaller tolerance, such as 30 km/h roads aiming to achieve a mean operating speed of 33km/h, will make it harder to introduce these lower speed limits.

**Recommendation:** Reference to 10 per cent above the speed limit should be amended so that RCAs should aim to achieve mean operating speeds that match the posted speed limits to within 5 km/h.

### Section 5 Additional procedural steps for certain speed limits

Under Section 5 a RCA must obtain approval from the Agency before setting a 70 km/h or 90 km/h speed limit. There should be no difference in the approval process for 70 km/h or 90 km/h speed limits, given the presence of a wide range of speed limits between 10 km/h and 110 km/h. The geometry of some local roads is not suitable for a 60 km/h or 80 km/h regime without costly additional engineering.

Rather than approval, consultation by RCAs with the Agency under clause 2.3(2) (g) is a sufficient mechanism for oversight by the Agency. Prior approval should not be required for the application of speed limits that have been set in accordance with the Rule. A speed limit of 70 km/h reflects a change of 20 km/h from 50 km/h and a speed limit of 90 km/h would reflect a change of 20 km/h either from 110 km/h or 70 km/h. Speed limits of 70 km/h are already in place and the Rule should not presume that limits of 70 km/h or 90 km/h would not be the safe and appropriate speed. There should not be a presumption that a speed limit of 80 km/h or 100 km/h should be preferred.

**Recommendation:** Approval from the Agency for setting a 70 km/h or 90 km/h speed limit, or a variable speed limit, should not be required and provisions for the Agency to change or modify the application of such speed limits set in accordance with the mechanism provide by the Rule should be removed. Clause 5.2 and subclauses 5.1(2) through (5) and 5.3(1) and (5) should be deleted.

Clause 5.3 (and 3.2) provide for setting speed limits at 110 km/h. This is one of the major changes in this proposed Rule and has safety, environmental and economic implications. The Regulatory Impact Statement (RIS) for the proposed Rule, in the Overview Document, simply says that the benefits are reduced journey times and that the estimated benefit-cost ratios are marginal for some individual road sections tested. Similarly on the issue of safety, the RIS says that the main risk of an increase to 110km/h travel speeds is that if there is a crash, the impact speeds could be higher, which could result in greater trauma. Previous evidence has shown that an increase in the open speed limit, as seen in 1985, was accompanied by a notable increase in rural fatalities and injuries relative to their urban counterparts<sup>5</sup>.

The major implications of the Rule change are not quantified in the RIS.

In addition there is no reference in this Document to the potential increase in emissions that would result. This is major omission when New Zealand should be limiting the use of fossil fuels in line with its undertaking under the Paris Agreement to reduce its emissions by 30 per cent below 2005 levels by 2030.

The relationship between increased speed and increased emissions is well understood, to the extent that it is understood that more fuel is burned to achieve higher speeds, generating greater

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<sup>5</sup> Koory G, & Frith W, *Changing Rural Speed Limits: Learning from the Past*, IPENZ Transportation Group Conference, 29-31 March, 2017.

emissions.<sup>6</sup> A report prepared by the Otago Medical School<sup>7</sup> this year draws on the Vehicle Emissions Prediction Model (VEPM) developed by the Agency and Auckland Council to conclude that an increase of only 4 km/h to the mean operating speed of the vehicle fleet would result in an overall increase in vehicle emissions.

As fuel consumption increases at a greater rate than operating speed at higher speeds,<sup>8</sup> an increase from 100 km/h to 110 km/h would significantly increase emissions. Also, with a 20 km/h speed differential with trucks limited to 90 km/h, cars will accelerate and decelerate more frequently and actual emissions would be even higher.

The Transport Agency's own benefit cost analysis for this proposal should be published.

**Recommendation:** The NZ Transport Agency release any quantified analysis of the implications of the proposed Rule, including impacts on increased emissions and any analysis of the benefit cost ratios for any individual road sections tested.

An increase in speed limits to 110 km/h with a 10km/h tolerance on mean operating speed means that vehicles would be travelling at 120km/h on expressways. HCVs restricted to 90km/h would result in a hazardous speed differential, particularly at on-ramps. The design of the modern expressway network with long distances between ramps and continuous median barriers means the Police find it increasingly difficult to patrol speeding. To address this, remote detection systems need to be introduced.

**Recommendation:** Raising the speed limit should be complemented by a change in legislation that allows remote detection systems to be introduced (such as point to point speed cameras).

### Section 6 Temporary speed limits

Clause 6.2 provides for a temporary speed limit when there is physical work occurring and 6.3 when there is an unsafe road surface or structure. There may be circumstances outside these limited criteria where use of a temporary speed limit is appropriate to enhance safety, such as at some rural intersections or during inclement weather where there may be obscured road marking or signage.

**Recommendation:** The criteria in clause in 6.1(2) (a) be broadened to cover the wider range of situations where it would be in the road user's interests to reduce speed.

Clause 6.2(2) permits temporary speed limits of 70 km/h and 90 km/h without Agency approval. Agency approval of these speeds, if set in accordance with the proposed Rule, should not be required in any circumstances.

**Recommendation:** Remove reference to Agency approval not being required despite 3.2(g) and (i).

Clause 6.2(3) requires that a temporary speed limit may apply for no longer than six months. A rigid time limit has been identified as potentially unrealistic. South Island RCAs have noted that their experiences suggest that this time limit would be too brief to obtain additional funding for remediation works in situations necessitating a temporary speed limit. A more appropriate response

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<sup>6</sup> Barth M, Boriboonsomsin K., Traffic Congestion and Greenhouse Gases. Access. 2009; 35:2–9.

<sup>7</sup> McLean R, et al, Bringing You Up to Speed: A Health and Economic Model of the Effects of Raising the Speed Limit on New Zealand State Highways and Motorways from 100km/h to 110km/h, University of Otago, Wellington, (2012).

<sup>8</sup> Rowland T, & McLeod, D, Time and fuel effects of different travel speeds, NZTA Research Report 582, May 2017

to temporary speed limits potentially being in place for protracted periods is to require that the RCA review the temporary speed limit if it has been in place longer than six months.

**Recommendation:** Amend clause 6.2(3) so that it does not require that a temporary speed limit may apply for no longer than six months, but that it must be reviewed if it has been in place for longer than six months.

Clause 6.2(7) allows the Agency or the Commissioner, at any time, to require the removal of a temporary speed limit and the removal of accompanying signs and equipment used to install or support the signs, if satisfied that the reason for the temporary speed limit no longer applies or the temporary speed limit is not appropriate in the circumstances for which the speed limit was set. The Rule should provide clear guidance on the mechanism for the Agency or Commissioner to be satisfied of the circumstances provided by subclauses 6.2(7)(a) and (b). It should not transfer responsibility for determining an appropriate speed limit to either the Agency or the Commissioner, as neither is supplied with a mechanism to do so by the Rule. If the speed limit has been set in accordance with the Rule, it should by definition be safe and appropriate.

**Recommendation:** Amend clause 6.2(7) to allow the Agency or the Commissioner, at any time, to require the removal of a temporary speed limit and the removal of accompanying signs and equipment used to install or support the signs, only if upon enquiry with the RCA and in review of roading conditions, they are satisfied that the reason for the temporary speed limit no longer applies or the temporary speed limit was not set in accordance with this Rule.

### Section 7 Emergency speed limits

The current arrangement of having to make a specific emergency Rule lowering speed limits on particular roads is a time consuming and cumbersome process. It will be beneficial for RCAs to be able to introduce Emergency speed limits promptly and without reference to the Agency. There are, however, a number of clauses in a similar style to those noted in the previous section that should be considered further.

Clause 7.2(2) permits emergency speed limits of 70 km/h and 90 km/h without Agency approval. Agency approval of these speeds, if set in accordance with the Rule, should not be required in any circumstances.

**Recommendation:** Remove reference to Agency approval not being required despite 3.2(g) and (i).

Clause 7.2(3) requires that an emergency speed limit may apply for no longer than six months. A rigid time limit has been identified as potentially unrealistic. South Island RCAs have noted that their experiences suggest that this time limit would be too brief to obtain additional funding for remediation works in situations necessitating an emergency speed limit. A more appropriate response to emergency speed limits potentially being in place for protracted periods is to require that the RCA review the emergency speed limit if it has been in place longer than six months.

**Recommendation:** Amend clause 7.2(3) as for clause 6.2(3).

Clause 7.2(4) requires that, within 10 working days of setting an emergency speed limit, a RCA must, by notice in the Gazette, publish what the emergency speed limit is, details regarding where the

emergency speed limit applies, the date the emergency speed limit was set, and its reasons for considering that an emergency speed limit is necessary. Clause 7.2(5) require the same process for any variation of an emergency speed limit. Clause 7.2(6) requires a RCA, if it fails to comply with 7.2(4) or 7.2(5), to immediately remove any speed limit signs installed under 7.2(1).

While it is unclear what practical purpose publishing an emergency speed limit in the Gazette would serve, over publishing it through local media and notifying the Agency, but it is imperative that speed limit signs where there is a risk of danger to any person or a risk of damage to a road due to an emergency that affects the use of a road are not removed merely in response to a clerical failure.

**Recommendation:** Amend clause 7.2(6) by the addition of: unless there is a risk of danger to any person or a risk of damage to a road due to an emergency that affects the use of the road.

Clause 7.2(7) allows the Agency or the Commissioner, at any time, to require the removal of an emergency speed limit and the removal of accompanying signs and equipment used to install or support the signs, if satisfied that the reason for the emergency speed limit no longer applies or the emergency speed limit is not appropriate in the circumstances for which the speed limit was set. The Rule should provide clear guidance on the mechanism for the Agency or Commissioner to be satisfied of the circumstances provided by subclauses 7.2(7)(a) and (b). It should not transfer responsibility for determining an appropriate speed limit to either the Agency or the Commissioner, as neither is supplied with a mechanism to do so by the Rule. If the speed limit has been set in accordance with the Rule, it should by definition be safe and appropriate.

**Recommendation:** Amend clause 7.2(7) to allow the Agency or the Commissioner, at any time, to require the removal of an emergency speed limit and the removal of accompanying signs and equipment used to install or support the signs, only if upon enquiry with the RCA they are satisfied that the reason for the emergency speed limit no longer applies or the emergency speed limit was not set in accordance with this Rule.

### Section 8 Roads in designated locations

There is nothing in clause 8.1 that has not already been fully provided for in previous clauses and which is not fully provided for by the requirement to set speed limits in accordance with this Rule. The requirement to consult the Agency and Commissioner on the speed limit for a designated area, such as a car park, camping ground or cemetery, also risks bringing the integrity of the Rule into question.

**Recommendation:** Delete clause 8.1.

Clause 8.2 defines and lists designated locations where RCAs may set a permanent speed limit. This list should include roads in marae and it would be helpful for the list to refer to cemeteries and urupa.

**Recommendation:** Amend clause 8.2 by the addition of marae and urupa to the list of designated locations for permanent speed limits.

### Section 9 Signs and road markings

Clause 9.2 sets out a new requirement to provide repeater signs. While Schedule 2 sets out the maximum length of road between signs, the proposed Rule potentially provides flexibility for a RCA as they are not obliged to comply with these lengths if the nature of the road is such that a road user would reasonably understand that the speed limit displayed on the last speed limit sign remains the

speed limit throughout the whole of that length of road. This concept is encouraging the use of “self-explaining roads”.

However, subclause 9.2(2)(a) relies on two ill-defined concepts: “nature of the road” and “reasonably understand”.. More precise definition of “nature” as function, design, safety, use, and the surrounding environment (land use) of the road should be used. Similarly, if the intention is that, where the function, design, safety, use, and the surrounding environment (land use) of the road remain consistent, the RCA is not obliged to comply with the lengths set out in Schedule 2, it would be preferable to re-phrase the subclause to remove any reliance on a driver’s reasonable understanding.

**Recommendation:** Amend subclause 9.2(2)(b) so that RCAs are allowed to ignore repeater sign requirements where the function, design, safety, use, and the surrounding environment (land use) of the road remain consistent.

Table 1 in Schedule 2 provides the maximum length of road between repeater signs for permanent speed limits. A threshold of having a repeater sign every two minutes of travel for a set permanent speed limit imposes a significant cost, especially for rural RCAs. If the intent of the proposed Rule is to achieve speed limits that are safe and appropriate, the network should move away from a situation in which roads have a default speed limit, of 100 km/h for rural roads in particular, that the Agency’s speed maps show to be neither safe nor appropriate, and towards a situation in which the speed limit is reflective of what is safe and appropriate for the condition of the road. As this becomes the norm and drivers become familiar with a speed environment where speed limits other than 100 km/h are more frequent, fewer repeater signs would be necessary.

**Recommendation:** Further consideration should be given to the required frequency for repeater signs for permanent speed limits, regardless of subclause 9.2(2)(b). In particular, the requirements for repeater signs in the event that the default rural speed limit was removed from the proposed Rule and if provision for broad “rural traffic areas” was introduced need to be assessed. RCAs should have the ability to monitor the placement of repeater signs to achieve an optimum balance of safety and efficiency.

## Part 2: Definitions

“Mean operating speed” is defined as “the mean speed of traffic, including all classes of vehicle, measured in a way that is representative of all traffic speeds on the road over a 7-day period”. This is potentially problematic for a few reasons. Firstly, it is not clear whether only free speeds (i.e. not impeded by vehicles in front) are desired. Secondly, technically measuring all classes of “vehicle” includes bicycles, which may not be the intended dataset. Finally, a number of sites may have quite different speed profiles throughout the week, which may lend themselves to the use of dynamic (variable) speed limit treatments.

**Recommendation:** Clarify the meaning of “mean operating speed”.

“Safe and appropriate speed” means a travel speed that optimises safety and efficiency outcomes. This is a too limited definition of “appropriate”, otherwise “safe and appropriate speed” could as easily have been rendered “safe and efficient speed”. The Speed Management Guide Objective 1.1.1.1 refers to managing speeds that are appropriate “for road function, design, safety, use, and the surrounding environment (land use)”. This permits a fuller understanding of what is meant by “appropriate”.

**Recommendation:** Amend the definition of “safe and appropriate speed” by the addition of: and is

suited to the road function, design, use and surrounding environment and land use.

“Road” includes a place to which the public have access, whether as of right or not, and this includes cycle paths and paths shared by pedestrians and cyclists. With greater provision for and use of paths for walking and cycling, there have been increasing queries regarding the status of posted speed limits on paths and cycleways, both alongside roadways and completely separate from road corridors.

It would be helpful if the proposed Rule clarified the situation regarding the ability to set specific speed limits for pathways and cycleways.

**Recommendation:** Clarify the application of posted speed limits on paths and cycleways by adding cycleways and paths shared by cyclists, walkers and others to the definition of “road”.

#### Schedule 1 Road lengths for speed limits

This table needs to set minimum lengths for 30 km/h and 40 km/h speed limits, but the minimum lengths for all speed limits need to be practical and consistent relative to the speed limit for which they are being set. A vehicle travelling at a steady 50 km/h will travel 833 m in 60 seconds; the minimum length is set at 500 m. A vehicle travelling at a steady 60 km/h will travel 1000 m in 60 seconds; the minimum length is also set at 500 m. The minimum lengths should provide for at least one minute of travel at the speed for which they are being set. The minimum lengths for 70 km/h and 90 km/h should be specified without reference to Agency approval or conditions.

**Recommendation:** Amend the table to set minimum lengths of road for which a speed limit may be set to provide for at least one minute of travel at each of the speed limits listed by clause 3.2.

Thank you again for the opportunity to comment on the Setting the Speed Limits [2017].

Yours sincerely



Malcolm Alexander

Chief Executive

Local Government New Zealand