

**Before a Panel of Independent Hearing Commissioners  
appointed by Kaipara District Council**

**IN THE MATTER OF** the Resource Management Act 1991 (**RMA**)

**IN THE MATTER OF** a submission by the New Zealand Transport Agency on a request by Dargaville Racing Club Inc for Private Plan Change 81 (Dargaville Racecourse) to the Kaipara District Council

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**STATEMENT OF EVIDENCE OF JAMES ROBERT HUGHES FOR WAKA KOTAHI NZ  
TRANSPORT AGENCY**

**SPEED MANAGEMENT**

**Dated 17<sup>th</sup> March 2023**

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## **Statement of evidence of James Robert Hughes**

### **1 Executive Summary**

1.1 My full name is James Robert Hughes. I am a Lead Advisor Safety at Waka Kotahi NZ Transport Agency (“Waka Kotahi”) in Auckland and have prepared this evidence on Private Plan Change 81 (“PPC81” or the “Plan Change”) as it raises road and road traffic safety concerns for Waka Kotahi.

1.2 Waka Kotahi is responsible for managing the state highway system, including planning, funding, designing, constructing, maintaining, and operating the system. State Highway 14 is located along the western boundary of the Private Plan Change 81 area and will be directly affected by the development proposed in the Plan Change. As a result, Waka Kotahi has a direct interest in the Plan Change.

1.3 When Waka Kotahi evaluates proposals such as the Plan Change, it seeks to ensure that those proposals are approved in such a way, or subject to conditions, rules or other requirements that:

(a) Appropriately manage potential adverse effects on the State Highway and wider transport system, including integrating development with transport infrastructure upgrades, so as to ensure minimal physical impact on our network infrastructure and the safety of those who use that infrastructure.

(b) Promote integration of development with public and active transport modes.

1.4 In this case, and my evidence outlines, the key issue for Waka Kotahi is implications the Plan Change has for the intersection of State Highway 14 and Awakino Point North Road and suggestions from advisers to the Applicant and the Council that those implications can be satisfactorily addressed by changes to the posted speed limit in this location. As I go on to explain, speed limit changes involve a specific process, and specific triggers for that process to commence. None of those triggers is activated by the Plan Change, and Waka Kotahi otherwise has no plan or mandate to consider changing the speed limit on this section of SH14. Because of this, Waka Kotahi supports a roundabout as the appropriate road safety measure for this intersection, if the Plan Change is to be recommended for approval. Any expectation as to posted speed change should be set to one side, as the process to assess and ultimately make such a change will not be commenced by Waka Kotahi.

### **2 Code of Conduct**

2.1 I have read and am familiar with the Environment Court’s Code of Conduct for Expert Witnesses, contained in the Environment Court Practice Notes 2014 and 2023, and agree to comply with it. My qualifications as an expert are set out above.

2.2 Other than where I state that I am relying on the advice of another person, I confirm that the issues addressed in this Statement are within my area of expertise. I have not omitted to consider material

facts known to me that might alter or detract from the opinions that I express. I have no conflict of interest to declare.

### **3 Qualifications and experience**

3.1 My full name is James Robert Hughes. My qualifications include:

- Honours Degree In Civil Engineering at the University of Birmingham (UK 1979)
- Chartered Engineer (UK 1987)
  - Member of the Institute of Civil Engineers (UK 1987)
  - Member of the Engineering Council (UK 1987)

3.2 I am the Lead Advisor Safety for the Transport Services Division of Waka Kotahi, which is responsible for the Road Controlling Authority duties that relate to the State Highway Network

3.3 My recent relevant experience includes:

- a NZ Representative on the Austroads Road Design Task Force (2007 – 2021)
- b NZ Representative on the Austroads Network Task Force (2121 – present)

3.4 My evidence relates to the requirements of the Speed Management process that Waka Kotahi undertakes when determining priorities for assessment.

3.5 I am giving evidence in my capacity as a Waka Kotahi employee. I confirm I have authority to give this evidence. I rely on my experience and knowledge of working at Waka Kotahi for the last 4 years in my current role and the previous 11 years as the National Design Engineer for Transit and the NZ Transport Agency. My evidence is informed by the high level strategies of Waka Kotahi, government policy and discussions with colleagues on various aspects of my role in the safety field. In my role I am responsible for the review and endorsement of Speed Limit Reviews on behalf of the Senior Manager Programme and Standards, who is delegated to enact the Speed Limit changes.

### **4 Scope of evidence**

4.1 The purpose of my evidence is to outline the statutory roles of Waka Kotahi in relation to the state highway network generally, and its future plans regarding speed management.

4.2 This evidence therefore addresses the following matters:

- a The Speed Management Process applied to the State Highway Network in the development of the Speed Management Plan as required by the Land Transport Act, Setting of Speed Limits Rule 2022;
- b The roles and functions of Waka Kotahi, as they relate to speed management;
- c Nationwide priorities for road safety and speed limit reviews; and
- d The Safe System approach.

## **5 Functions and Objectives of Waka Kotahi**

5.1 As they relate to speed management, the key functions and objectives Waka Kotahi has are:

- a The Land Transport Rule: Setting of Speed Limits 2022 and the Speed management guide: Road to Zero edition, helps road controlling authorities set safe and appropriate speed limits for our streets and roads, using a principles-based approach to creating a safe transport system that has safe speed limits at its heart for all people no matter their mode of transport. The guide and the Rule enable Regional Transport Committees (RTC) and Road Controlling Authorities (RCA) to set and manage speed limits in a coordinated and consistent manner across the country, so that like roads are treated in like manner. This approach will help achieve safe speed limits throughout the road network to reduce deaths and serious injuries and contribute towards Vision Zero – an Aotearoa New Zealand where no one is killed or seriously injured in road crashes. A small change in speed can significantly affect the outcome of the crash.
- b Importantly, Waka Kotahi is unable to predetermine the outcome of the speed management process, when reviewing speed limits. There is a legal process which must be undertaken before any changes can be made, and in determining whether they should be made. The review process involves a technical assessment of the existing speed limits, engagement with various stakeholders, such as local communities, councils, and road user representative groups, this is then followed by formal consultation. Waka Kotahi, as a road controlling authority, is required to give due regard to the policies and strategies laid out in Road to Zero and the Speed management guide: Road to Zero edition.

5.2 Principles

- a Safe System principles are key to the development of a Speed Management Plan, and remind us that:
  - i people make mistakes that lead to road crashes
  - ii the human body has a limited physical ability to tolerate crash forces before harm occurs

- iii the responsibility for safety is shared amongst those who design, build, manage and use roads and vehicles
  - iv all parts of the system must be strengthened so that, if one part fails, people who use the road are still protected.
- b As we work towards a safe transport system across Aotearoa, speed limits and infrastructure will be improved to suit the roads and the surrounding areas, vehicles will have safety features designed to protect people, and people using the road will make safe choices.

Figure 2: Safe System principles



The four guiding principles from the Guide relating to safety, community wellbeing, movement and place, and system



These principles inform the Setting of Speed Limits Framework, which provides the rationale for identifying the safe and appropriate speed limits for all streets and roads.

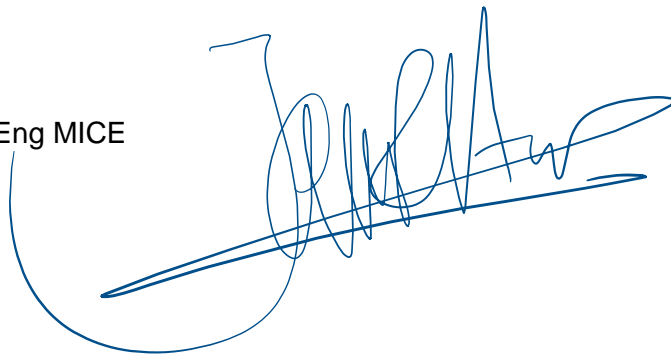
### 5.3 Setting Safe and Appropriate Speeds

- a With most state highways having speed limits that are above the safe and appropriate speed limit, and noting the scale, function and use of our state highways, Waka Kotahi is taking a pragmatic approach that involves progressing towards safe and appropriate speeds over time and targeting the highest risk areas. Through the development and implementation of the State Highway Speed Management Plan 2024-27, we will address the wider state highway network considering the wider safety context which integrates speed limits, safety infrastructure improvements and enforcement (using safety cameras) more holistically.
- b The process involves preparing a list of candidate speeds to consider changing and using the Speed Management Guide to determine the likely Safe and Appropriate Speed (SaAS) for the existing current state environment. We then consider known planning considerations, safety infrastructure and safety cameras to determine if there will be future changes to the environment to propose a different SaAS.
- c The corridors are prioritised according to speed related safety risk and the level of savings to be made in relation to deaths and serious injuries (DSIs) by speed reductions. The risk is assessed by comparing the safe and appropriate speed with the operating speed. The DSI savings are calculated by taking the crash history and factoring this by the impact of speed reduction on crashes according to Nilsson's Power Model (2010).
  - i i.e. "Decreases in fatal crashes are related to the 4(th) power of the decrease in mean speed; decreases in serious casualty crashes (those involving death or serious injury) according to the 3(rd) power; and decreases in casualty crashes (those involving death or any injury) according to the 2(nd) power.
- d However, in the aftermath of the recent natural disasters and a change in priorities for available funding, the Government has directed Waka Kotahi to scale back our Speed Management Plan.
- e Currently, we are obliged to:
  - i review the top 1% highest risk corridors.
    - A This section of SH14 is approximately between the top 40-60% of state highway corridors.
    - B Based on our current prioritised corridor assessments the corridor in question is very low priority and therefore very unlikely to be part of the 10 year plan.
  - ii consider targeted speed changes around schools, marae and townships.
  - iii undertake a review of all existing 70's and 90's.

- iv undertake a review of all Cat 2 schools to determine if the Cat 2 Classification is still appropriate.
- f This is sense checked with the regional teams for appropriateness (including Regional Land Transport (RLT) and System Design (SD)).
- g The Setting of Speed Limits Rule requires that the Safe and Appropriate Speed process considers the current corridor condition. A Road Controlling Authority also takes account of the One Network Framework (ONF) Classification. The ONF identifies the corridor's intended purpose in relation to the weighting between 'movement' and 'place'. It is important to note that there is often a miss-match between the local authorities' aspirations for a corridor and the current state. In order to provide consistency for drivers, Waka Kotahi will liaise with the local authorities as they give effect to the ONF classification and the speed environment transitions over time.
- h As a Road Controlling Authority we are required to set the speed limits according to the characteristics of a road corridor. We cannot, therefore, set a speed limit that relates to a future state (such as that which would be brought about by the Plan Change) and so cannot commit to any such a change being enacted. In addition, in order to achieve the actual reduction in travel speeds, we also apply appropriate changes to the physical environment in order to make the speed environment more intuitive for drivers. Examples of this are threshold treatments, visual narrowing including the introduction of flush medians) and raised safety platforms.

17 March 2023

James Robert Hughes BSc CEng MICE

A handwritten signature in blue ink, appearing to read 'James Robert Hughes', is written over a large, faint blue circular stamp or watermark.