

# **ATTACHMENTS**

**Taupo East Rural Representative Group  
Meeting**

**3 March 2022**

## Table of Contents

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3.1	Taupo East Rural Representative Group Meeting - 14 October 2021	
	Attachment 1 Taupo East Rural Representative Group Meeting Minutes - 14 October 2021 .....	3
4.5	Update on Council's Review of Speed Limits	
	Attachment 1 Draft Speed Management Plan Consultation Document .....	8
	Attachment 2 Draft Speed Management Plan .....	31

Taupo East Rural Representative Group Meeting Minutes

14 October 2021

**TAUPŌ DISTRICT COUNCIL  
MINUTES OF THE TAUPŌ EAST RURAL REPRESENTATIVE GROUP MEETING  
HELD AT THE RANGITAIKI COMMUNITY HALL, RANGITAIKI SCHOOL ROAD, RANGITAIKI  
ON THURSDAY, 14 OCTOBER 2021 AT 11.06AM**

**PRESENT:** Cr Kylie Leonard (in the Chair), Ms Evelyn Forrest, Mr Patrick Hart, Mayor David Trewavas

**IN ATTENDANCE:** Deputy Chief Executive, Digital Transformation Manager, Infrastructure Manager, Community Engagement and Development Manager, Three Waters Manager, Senior Policy Advisor, Democratic Services Support Officer

**MEDIA AND PUBLIC:** Nil

Chair Cr Kylie Leonard welcomed everyone and Ms Evelyn Forrest opened the meeting with a karakia.

Note: Items were dealt with in the following order: 1 - 4.3, 4.5, 4.4, 4.6 - 4.7.

**1 APOLOGIES**

**TERR202110/01 RESOLUTION**

Moved: Mayor David Trewavas

Seconded: Ms Evelyn Forrest

That the apologies from Cr John Boddy and Cr Anna Park be received.

**CARRIED**

**2 CONFLICTS OF INTEREST**

Nil

**3 CONFIRMATION OF MINUTES**

**3.1 TAUPŌ EAST RURAL REPRESENTATIVE GROUP MEETING - 25 JUNE 2021**

**TERR202110/02 RESOLUTION**

Moved: Ms Evelyn Forrest

Seconded: Mr Patrick Hart

That the minutes of the Taupō East Rural Representative Group meeting held on Friday 25 June 2021 be confirmed as a true and correct record.

**CARRIED**

Taupo East Rural Representative Group Meeting Minutes

14 October 2021

## 4 REPORTS

### 4.1 ELECTION OF DEPUTY CHAIRPERSON

Members opted to use voting system B to elect the deputy chairperson, which was the simplest option.

**Ms Evelyn Forrest**

**Nominated by Mr Patrick Hart**

**Seconded by Cr Kylie Leonard**

### TERR202110/03 RESOLUTION

Moved: Mr Patrick Hart

Seconded: Cr Kylie Leonard

That the Taupō East Rural Representative Group:

1. Confirms that System B be used to determine the election process for the Deputy Chairperson.
2. Elects Ms Evelyn Forrest as the Deputy Chairperson of the Taupō East Rural Representative Group Committee.

**CARRIED**

### 4.2 ACTION POINTS UPDATE

The following updates were noted:

- Cr Kylie Leonard to forward contact details for two people who had expressed an interest in the community representative vacancy on the Committee.
- The Digital Transformation Manager gave an update on the representation review.

### TERR202110/04 RESOLUTION

Moved: Cr Kylie Leonard

Seconded: Mayor David Trewavas

That the Taupō East Rural Representative Group receives the current action points update.

**CARRIED**

### 4.3 UPDATE ON THREE WATERS REFORM

The Infrastructure Manager introduced the new Three Waters Manager and the Deputy Chief Executive introduced the new Community Engagement and Development Manager.

The Infrastructure Manager and the Three Waters Manager made a PowerPoint presentation about the 'Three Waters Reform' (A3081422) and answered questions. The following points were noted:

- The Havelock North water supply contamination incident and water infrastructure problems throughout the country, including in Wellington and Auckland, had led Central Government to examine 'three waters' throughout the country and commence reform.
- It was accepted across the industry that the *status quo* was no longer an option.
- A new regulatory body, Taumata Arowai, had been established in July 2020.
- Regional service delivery entities would be established by 2024. It was proposed that Taupō district would be included within 'Entity B'.
- 'Te Mana o Te Wai' was part of a National Policy Statement for freshwater management. Central to this were the concepts of the importance of water; best management of freshwater; and ensuring the health and well-being of water for human health.

Page 2

## Taupo East Rural Representative Group Meeting Minutes

14 October 2021

- All councils in the country had participated in a data collection exercise at the end of 2020 and into the early months of 2021. This included provision of data relating to 'three waters' including operations and costs. The Department of Internal Affairs (DIA) collated the information. Metric summaries were available to view on the DIA's website.
- Council was currently responsible for water supplies owned by it. Under the new regulator, it was likely that all supplies would be monitored and required to comply with standards in the future (four to seven years into the future).
- Taumata Arowai's role would be to ensure all drinking water supplies meet certain standards. The standards would be set and monitored by the regulator.
- The 'Three Waters Reform' was taking place at the same time as resource management and local government reform; there was a lot of potential change happening in the local government space.
- 'Entity B' would oversee an area with a population of approximately 800,000 people, over a very large area including Waikato, Otago, Manawatu and Taranaki. The proposal included three entities covering the North Island and one entity for the South Island.
- Council had made a submission requesting the 'Three Waters Reform' process be stopped immediately. Key concerns included accountability measures; the need to consult with the community; and the fact that this was one of several pieces of reform which would affect local government. Most other councils around the country had raised similar concerns.

Members discussed the 'Three Waters Reform' and it was noted that feedback was still being considered and final decisions, including in relation to rural schemes, had not yet been made.

A member made the point that 65 lwi would also need to be included in decision-making and governance / selection of governors.

**TERR202110/05 RESOLUTION**

Moved: Mayor David Trewavas

Seconded: Ms Evelyn Forrest

That the Taupō East Rural Representative Group receives the information on the 3 Waters Reform.

**CARRIED****4.4 TAUPŌ DISTRICT COUNCIL - DISTRICT PLAN REVIEW**

The Senior Policy Advisor provided an update on Taupō District Council's District Plan review and answered questions. The following points were noted:

- The District Plan was due for review because it was over 10 years old.
- The review process was costly. The Resource Management Act 1991 (RMA) was currently under review by Central Government, so Council was considering the best approach to the District Plan review in light of legislative change ahead.
- A 'pinchpoint' review had been undertaken and scope narrowed down to areas holding up development with a focus on the key zones – rural, residential, commercial and industrial. Once those four chapters were updated, the District Plan would operate efficiently in the interim period, until the RMA review process was complete.
- The review of the rural section of the District Plan had almost been completed.
- Review of the Significant Natural Areas (SNAs) chapter had been put on hold until a National Policy Statement on indigenous biodiversity had been issued.
- In relation to the residential zone chapter, the District Plan currently allowed for 30% section site coverage, however Council was processing a large number of consents for higher coverage (approximately 35%).

Page 3

Taupo East Rural Representative Group Meeting Minutes

14 October 2021

- There was pressure for rural lifestyle blocks, which presented challenges for Council due to servicing costs, for example rubbish collection and provision of street lights. Currently these blocks would sit within the rural zone, however one option Council was considering was to create a new rural lifestyle zone. Large lot residential was another possibility.
- A new position had been created in the Policy team with a focus on housing including affordability; supply; liaison with other agencies to address housing issues.

**TERR202110/06 RESOLUTION**

Moved: Mr Patrick Hart

Seconded: Ms Evelyn Forrest

That the Taupō East Rural Representative Group receives the update on the Taupō District Council District Plan Review.

**CARRIED****4.5 RESOURCE MANAGEMENT ACT (RMA) REFORM**

The Senior Policy Advisor made a PowerPoint presentation on Resource Management Act 1991 (RMA) reform (A3085176). She answered questions. The following points were noted:

- The exposure draft for the Natural and Built Environments Bill had been released and Council was analysing it.
- Proposed changes to the legislation included requirements to give effect to the principles of the Treaty of Waitangi, rather than taking the principles into account; setting mandatory environmental limits; re-introducing the precautionary principle; and increasing the role of Māori in decision-making.
- A lot of details were still to come.
- In terms of the structure of documents, district plans would become natural and built environment plans.
- Taupō district sits within four regions, with the majority of the district in Waikato region, so the Waikato part of Taupō district would sit within the Waikato plan; and other parts of the district would be inserted into other plans.
- The plan drafting process would involve planning committees with representatives from the Department of Conservation; Mana Whenua representatives; and one representative nominated by each local authority.
- Council had made a submission on the exposure draft. Concerns raised included the fact that Taupō district was an outlier due to its position within four regional council areas; how would local decision-makers be able to influence such a big plan (taking into account rules for particular areas, for example Kinloch)?
- The Natural and Built Environments Bill would be considered prior to the Strategic Planning Bill.
- Designations were useful for infrastructure installations, for example water stations, to avoid the need for future resource consent applications in particular areas.
- The Natural and Built Environments Bill was due to pass into law in late 2022. The Strategic Planning and Climate Adaptation Bills would then follow in 2023.
- Papakainga provisions would form part of rural and residential zones. A member noted that land was available for Papakainga settlements, but infrastructure costs were high, so funding support was sought from Government agencies.
- An update on Council's Housing Strategy would be included on the next Taupō East Rural Representative Group meeting agenda.

Page 4

Taupo East Rural Representative Group Meeting Minutes

14 October 2021

**TERR202110/07 RESOLUTION**

Moved: Mr Patrick Hart  
Seconded: Ms Evelyn Forrest

That the Taupō East Rural Representative Group receives the information in relation to the Resource Management Act Reform.

**CARRIED****4.6 COMMUNITY ISSUES**

The following community issues were raised, with action points noted in *italics*:

- The query about the unsightly storage of belongings on private property down from Tram Road had been passed on to Waikato Regional Council.
- The Infrastructure Manager advised that roading projects had been reprioritised as a result of Waka Kotahi funding changes.
- There had been rumours above positive Covid-19 virus results in Taupō district wastewater samples. Official wastewater testing results were available on the Institute of Environmental Science and Research (ESR) website.
- Mr Peter McBride, Fonterra Chair, would be speaking at the Taupō Yacht Club on 2 November 2021.
- The Nukuhau Private Plan Change hearing was set down for 8-10 November 2021 – *item on next Taupō East Rural Representative Group meeting agenda.*

**TERR202110/08 RESOLUTION**

Moved: Cr Kylie Leonard  
Seconded: Mayor David Trewavas

That the Taupō East Rural Representative Group receives the information relating to community issues.

**CARRIED****4.7 MEMBERS' REPORTS**

No members' reports were received.

**5 CONFIDENTIAL BUSINESS**

Nil

The meeting closed at 12.57pm.

The minutes of this meeting were confirmed at the Taupō East Rural Representative Group meeting held on 3 March 2022.

.....  
**CHAIRPERSON**

## CONSULTATION DOCUMENT: TAUPŌ SPEED MANAGEMENT PLAN

### Introduction

We want everyone who calls Taupō District home and visitors who pass through to be safe when using our streets and roads. That means we need the right speeds on the right roads for all road users, whether you are walking to the shops, biking to school, driving to work or making deliveries.

The government has identified speed management as a key priority to address road safety across the country. Taupō District Council is responsible for setting speed limits on roads under its control to ensure they are safe and appropriate. We are working with Waka Kotahi (the New Zealand Transport Agency) to introduce a Speed Management Plan for the roads across our District.

The plan will bring together our strategies on safety-related infrastructure improvements and make some changes to speed limits across our district.

We have used data from the experts (consultants and road safety experts), and feedback from our community to shape our approach of setting speed limits outlined in this document. We now want to hear from you - the people who know our roads best - about our proposed speed limit changes and how they will impact you.

### Why speed management is important

We have a mix of road types across our District. Some are windy and hilly, others flat and straight. We also have many different road users including pedestrians, people with disabilities, cyclists, horses, tourists, cars, campervans, boats (being towed), agricultural vehicles, and heavy vehicles.

A review of data from 2011-2020 shows that on Taupō District roads (excluding State Highways) there have been 147 crashes resulting in fatal and serious injuries to people. Speed has been a contributing factor in the crash occurring in 25% of these incidents.

Regardless of what causes an accident, we know higher speeds lead to more crashes and a greater chance of injury or death. A small change in speed makes a big difference, especially when cyclists or pedestrians are involved. In a crash, speed is the number one factor in determining your chance of survival or likelihood of serious injury.

The chance of surviving an accident increases markedly below certain speeds. These speeds are outlined below:

- pedestrian struck by vehicle = 30 km/h
- motorcyclist struck by vehicle = 30 km/h
- vehicle striking a pole or tree = 40 km/h
- side impact vehicle-to-vehicle crash = 50 km/h
- head-on vehicle-to-vehicle crash = 70 km/h.

#### How we currently manage the speed of vehicles

We regularly assess and review the physical aspects of our streets and roads to make sure they are safe for all road users. When setting and revising speed limits there are a number of things we consider:

- Traffic volumes and types of road users, including pedestrians, cyclists, tourists, and trucks.
- Historic crash information.
- The characteristics of the road and roadside, including:
  - o What is next to the road (e.g. housing, schools, playgrounds, retirement homes, tourist attractions).
  - o What is on the roadside (e.g. footpaths, cycle lanes, power poles, trees, barriers, berms, ditches, gullies, cliffs).
  - o What the road is like (e.g. width of the road and road edge, its surface, types of corners, visibility, number and type of intersections, pedestrian crossings and/or the existence of barriers).
- Community concern (i.e. regular users of the road who see how it is used, potential risks and near misses).
- The appropriate speed for the efficient movement of people and goods on the road.

#### When the speed limit changes are happening

We are prioritising the changes we need to make over the next 10 (or so) years. The changes we are looking to make now (from 2022-2024) will focus on key roads where there are a lot of people and high numbers of vehicles. We will begin to implement these changes later this year, when the 2021 Land Transport Rule: Setting of Speed Limits comes into effect.

From 2024 we will start focusing on the second and third groups below. This will include roads identified as requiring additional infrastructure and roads that are not as busy. The focus areas are outlined in the table below.

Priority	Focus Area
<b>1</b>  <i>From 2022 until 2024</i>	<ul style="list-style-type: none"> <li>- Roads and routes that we expect to bring the greatest reduction in crashes.</li> <li>- The roads that connect to these to ensure the network is easy to navigate.</li> <li>- Streets where there are lots of people moving around - for example in town centres and outside schools.</li> <li>- Roads where the community are calling for change.</li> </ul>
<b>2</b>  <i>From 2024 until 2027</i>	<ul style="list-style-type: none"> <li>- Continue to focus on key roads and surrounding areas where making changes will bring a reduction in crashes.</li> <li>- Most local neighbourhoods and the streets within them.</li> <li>- Roads that require infrastructure to improve safety (e.g. barriers, traffic islands, signage).</li> </ul>

**3***From 2027 onwards*

- Remote, low volume rural roads including unsealed roads.
- Any other roads identified as needing to change.

*We are not looking to change speeds on state highways. This is because state highways are outside the responsibility of the Council. They are set and managed by Waka Kotahi. If you have concerns with speed limits on state highways in our District, please raise these with us - we work closely with Waka Kotahi and will pass your feedback on.*

**How much will it cost?**

There is no additional cost to make these changes. These changes have been budgeted for in our 2021-2031 Long-term Plan.

## How to have your say

You can have your say in the following ways:

### - Online

[www.taupodc.govt.nz/council/consultation](http://www.taupodc.govt.nz/council/consultation)

Commented [BF1]: Comms- is there a shortened link?

### - Visit

Pop along to talk to one of our Speed Management team at one of the drop-in sessions.

o XXXXXXX

o XXXXXXX

o XXXXXXX

Commented [BF2]: Working with the engagement team to consider how these sessions will run in a Covid/ Omicron scenario.

More information about these sessions can be found at XXX.

Commented [BF3]: Link to web-page

You can also pick up a feedback form from one of our service centres in Taupō, Turangi or Mangakino, and drop the completed form back to any of these locations.

### - Post

Phone us on 07 376 0899 to request a feedback submission form. We will post one to you.

### - Email

Send your feedback to XXXXX

Commented [BF4]: Bryson organising email inbox

### - Mail

Speed Management Changes  
The Chief Executive Officer  
Taupō District Council  
Private Bag 2005  
Freepost No. 112497

## What happens with my feedback?

We will consider all feedback received throughout our consultation period. This runs until **4.30pm Friday 13 May 2022**.

After gathering and looking at your feedback, priority one speed limit changes will be confirmed by Council and adopted in our Speed Management Plan. Waka Kotahi will give approval and they will be added to the National Speed Limit Register.

Our Speed Management Plan and these speed limit changes will go through the following approval process:

- Draft Speed Management Plan approved by councillors in February.
- Engage with our community about our Speed Management Plan – from 14 March until 4.30pm on Friday, 13 May 2022. (this is the stage we are at now).

- Speed Management Plan finalised - all of your feedback submitted through this consultation will be considered by our transport team as part of our final Speed Management Plan.
- Plan approved - the final plan will be approved and adopted by Council later this year. Following this, we will send our plan to Waka Kotahi for their approval.
- Implementation - we will implement priority one changes within the next two years. We will be back in touch about the speed limit updates in priority two and three at a later date.

Please note: All written submissions will be made available to the public on the Council website in accordance with our privacy statement. For more information, you can visit [www.taupodc.govt.nz/privacy-policy](http://www.taupodc.govt.nz/privacy-policy).

**Useful links:**

- Map of Priority One Speed Limit Changes- **XXXXX**
- Land Transport Rule: Setting of Speed Limits 2021\*<https://www.nzta.govt.nz/assets/consultation/land-transport-rule-setting-of-speed-limits-2021/Setting-of-Speed-Limits-2021-for-consultation.pdf>
- Waka Kotahi Speed Management Strategy- <https://nzta.govt.nz/safety/what-waka-kotahi-is-doing/nz-road-safety-strategy/speed-and-infrastructure/speed-management/>

Commented [BF5]: Comms- Can we please turn this part into a roadmap/ infographic?

Commented [NC6R5]: I wonder whether it is worth showing how long we have been working up the draft?

Commented [NC7R5]: Just need to add some dates in there

Commented [BF8R5]: Feedback from comms- will only include what's happening from here- not the work that has led up to the draft.








Commented [BF9]: Bryson to provide link




### We want to hear from you!

- Do you agree with the approach we are using to set speed limits across our District?
- Do you agree with the speed limit changes we are proposing?

### Our approach

We have used your feedback, resources, advice from Waka Kotahi and road safety experts to guide our approach in setting new speed limits.

Speed Limit	Road environment
  	<p>30km/h in busy places where there are lots of people walking and biking e.g. Taupō and Turangi town centres and outside most schools/kura.</p> <p>There are some schools/kura where we will introduce variable speed limits. This means the 30km/h speed will only apply at the start and end of each school day.</p>
	<p>40km/h on residential streets connecting to main roads and in neighbourhoods where people live and play. This may include some residential streets in rural towns, and some streets that are close to schools.</p>
	<p>50km/h on some main residential roads where there is a high volume of vehicles. These roads are not typically used just for residential purposes but are also main travelling routes. These roads may require improvements for pedestrians and cyclist safety (e.g. crossings, cycle lanes)</p>
	<p>60km/h on local rural roads that are narrow and/or windy. This includes unsealed rural roads, and some roads that have high safety concerns.</p>
	<p>We will either increase 70km/h speed limits to 80km/h (with the required road safety engineering) or decrease them to 60km/h. These changes will be made depending on where the road is located and what it is used for to ensure it remains safe and appropriate.</p>

	80km/h on local rural roads that are mainly straight but have hazards on them.
	An interim speed limit of 90km/h may be set on rural arterial roads until these roads can be increased to 100km/h (following safety improvements) or decreased to 80km/h.
	100km/h on roads with suitable alignment that are also accompanied by appropriate engineering (e.g. shoulders, clear zones, and barriers).





## The speed limits we are proposing











### Schools

We have been given strong national direction from Waka Kotahi to introduce safer speed limits outside schools/kura.

The proposed speed limit of 30km/h outside schools recognises these areas as 'people places' where parents and children are walking, cycling and accessing the school. While most speed limits will be permanent, there are some cases where we will look to introduce variable speed limits. This means the 30km/h restriction will apply only at the start and end of the school day.

In some cases, the speed limits for other roads surrounding or connecting to schools are also being reviewed. These streets are busy not only during school hours but at any given time of the day. For example, Kotare Street (adjacent to both Taupō Intermediate and Taupō Hospital) is used for staff and visitor parking throughout the day. Some of these streets may require an adjustment of speed limits to ensure the safety of all road users for all parts of the day.

Current Speed Limit	Proposed Speed Limit	Schools	Why we're making changes
		<ul style="list-style-type: none"> <li>- ADDI Enrichment Academy</li> <li>- Hilltop School</li> <li>- Mangakino Area School</li> <li>- Taupō Intermediate</li> <li>- Te Kura o Hirangi</li> <li>- TKKM o Whakarewa i Te Reo Ki Tuwharetoa</li> <li>- Tongariro School</li> <li>- Waipahihi School</li> <li>- Wairakei School</li> <li>- Tauhara College</li> <li>- Mountview School</li> </ul>	Reducing speed limits around schools in residential areas is a national priority focusing on the safety of children walking and cycling to schools. We have also received feedback from our community supporting this reduction.
		<ul style="list-style-type: none"> <li>- Taupō-nui-a-Tia College</li> </ul>	Taupō-nui-a-Tia College is located on Spa Road. This is a major road that people use to get around Taupō. It connects businesses, recreational activities, and enables movement around the town. Given the high traffic volume this road carries, it is more practical for the 30km/h speed limit to apply only at the start and end of the school day when students are going to and from school.

		<ul style="list-style-type: none"> <li>- Taupō Primary School (Titirapenga St frontage)</li> <li>- St Patrick's Catholic School (Taupō)</li> <li>- Tauhara Primary School</li> <li>- Lake Taupō Christian School</li> </ul>	These schools are located on busier roads. Given the high traffic volume of these roads, it is more practical for the 30 km/h speed limit to apply only at the start and end of the school day when students are going to and from school.
		<ul style="list-style-type: none"> <li>- Rangitaiki School*</li> </ul>	<p>Rangitaiki School is located on an access road that joins to a 100km/h rural road.</p> <p>We are proposing to change the speed limit on the access road. This will ensure the speed limit aligns with the national priority of 30km/h speed limits and ensure the safety of everyone accessing the school.</p>
	 	<ul style="list-style-type: none"> <li>- Tirohanga School</li> </ul>	This school is on a busy rural road. Given the speed that vehicles travel at on this road, the speed limit around the school should be reduced permanently to 80km/h with a variable speed limit of 30km/h at the start and end of the school day to provide safer access to the school.
	 	<ul style="list-style-type: none"> <li>- Whakamaru School</li> </ul>	This school is on a rural road. To be more consistent with speed limits on surrounding roads the speed limit around the school should be reduced permanently to 60km/h with a variable speed limit of 30 km/h at the start and end of the school day.

\*Indicates a rural school

#### Map

To see a map of the speed limit changes we're proposing to make at schools/ kura and on surrounding streets you can visit [LINK](#)







Commented [BF10]: Link to come from Bryson











### Rural District Roads

Over the past few years there have been a number of crashes on our rural roads. We have also received community feedback with concerns about the speed and safety of these roads. Our first focus is to make speed limit changes on some rural roads that will bring a reduction in crashes resulting in crashes and serious injuries.

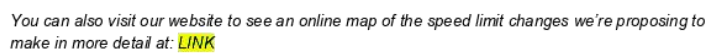
Some of our rural roads are busy arterial routes. Speed reductions will have a small impact on most people; however, the impact may be more significant for businesses who make many trips over a day. We need to ensure main routes are safe, but also maintain reasonable speeds and travel times for road users.

Parts of some rural roads below are narrow, have a curved alignment, or sight restrictions. Another thing we need to consider is that if we were to keep speed limits on these roads at 100km/h we would need to undertake major and costly engineering improvements to make these roads safe. This is not to say that we will not be making roading improvements on rural roads in the future.

Road	Current Speed Limit	Proposed Speed Limit	Why we're making changes
Poihipi Road East (Tukairangi Road to Whangamata Road)			A lot of people travel from Kinloch into Taupō township along this part of Poihipi Road.  The road has some dangerous curves and intersections and there have been a number of crashes in the past. Reducing the speed limit to 80km/h in this section will help to minimise the likelihood and severity of crashes for road users.
Poihipi Road Middle (Whangamata Road to Tirohanga Road)			This section of has lesser volume of traffic but is an important economic link for local farms and businesses and provides a connection to Taupō township  The road has some dangerous lines and angles and mixture of road side hazards. Reducing the speed limit to 90km/h in this section will help to minimise the likelihood of crashes for road users.
Poihipi Road West (Tirohanga Road to SH32)			This part of Poihipi Road and the roads adjoining it are narrow and winding. Crashes have also occurred on this part of the road in the past.  Because of the physical nature of the road, we are proposing to

			reduce the speed limit to 80km/h on this part of Poihipi Road.
Whangamata Road (from Poihipi Road to Otake Road), and Hitiri Road			<p>Whangamata Road is the main connecting road from Poihipi Road into Kinloch. There are a number of driveways along this stretch of road.</p> <p>We have received feedback raising concerns about the current 100km/h speed limit along this road. There have also been a number of crashes reported over time. An 80km/h speed limit will reduce the likelihood and severity of crashes</p>
Tukairangi Road			<p>Because of the physical nature of Tukairangi Road and its connection to other major rural roads in the area (e.g. Poihipi and Mapara Roads) it is proposed we reduce the speed limit to 80km/h for consistency within the roading network.</p>
Mapara Road (west of Hill View Drive to Poihipi Road) and roads that lead off this.			<p>We have received a number of requests from the community to reduce the speed limit along Mapara Road.</p> <p>We have also considered the road alignment and identified narrow parts of the road where reducing the speed limit to 80km/h will increase safety and ensure consistency within the roading network.</p>
Mapara Road and roads that connect to this (from Hill View Drive to Acacia Heights Drive)			<p>A number of lifestyle blocks exist on the south eastern end of Mapara Road and the roads that connect to this. All of these side roads are no exit and steep. A slight reduction to 60km/h will create a safer environment for the community.</p>
Broadlands Road (SH1 western on-ramp to View Road)			<p>As Taupō township develops, an extension of the 80km/h speed limit recognises growth and increases safety as road users in this area increase. There have also been a number of crashes reported on this road over time.</p>

**Commented [BF11]:** The absolute difference legend—our designer will get access to the e-version of the map. We will be removing all legends relating to “absolute difference”. They are not necessary for this consultation.









### Taupō Central

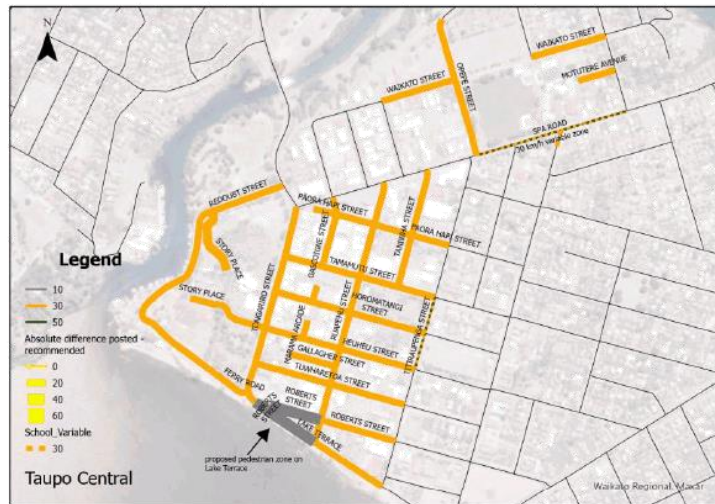
The Taupō Town Centre Transformation project has been part of Council's strategic planning since 2004. It aims to create a quality urban environment that takes advantage of the natural assets we have in Taupō.

As part of this project, we are creating a pedestrian-friendly area along part of the lakefront. This means we are redirecting most traffic along Tiraupenga Street and reducing speed limits on Roberts Street to create a shared space along part of Lake Terrace.

We are proposing to reduce speeds on the streets connecting to Lake Terrace. The town centre is a busy place and with more people moving around for different purposes. Reducing speeds will reduce the likelihood of someone being seriously hurt.

Road	Current Speed Limit	Proposed Speed Limit	Why we're making changes
Lake Terrace (between Tongariro St and Ruapehu St)			We consulted with our community on this change as part of the Taupō Town Centre Transformation project.  This stretch of road is being closed to vehicles as part of the project and will become a pedestrian and reserve area.
Roberts Street (between Tongariro St and Ruapehu St)			Reducing speed limits on this part of Roberts Street is included in our Taupō Town Centre Transformation project.  Having Roberts Street as a shared street through reducing the speed limit to 10km/h will encourage and provide greater safety to pedestrians using this area.
Other town centre roads and roads around Taupō-nui-a-Tia College			The roads in Taupō town centre and around Taupō-nui-a-Tia College have high concentrations of people walking, cycling and travelling in vehicles.  Reducing the speed limit to 30km/h is consistent with the Taupō Town Centre Transformation project and will provide greater safety to pedestrians and road users in these areas.

### Map













You can also visit our website to see an online map of the speed limit changes we're proposing to make in more detail at: [LINK](#)









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### Taupō and surrounds

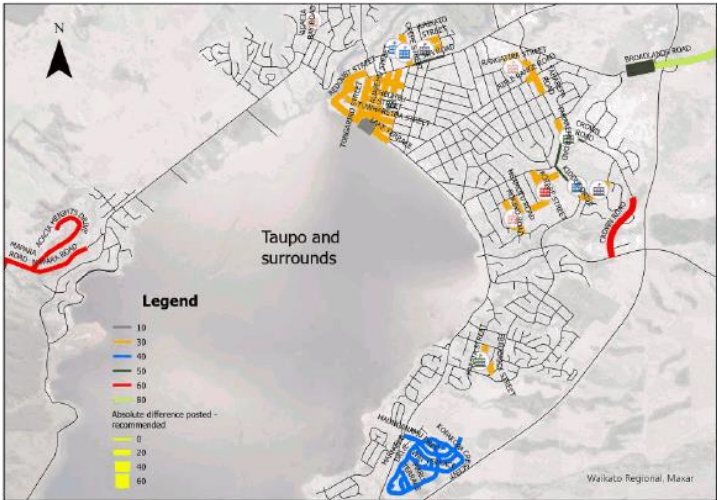
There are a variety of streets and roads in the Taupō surrounds area. We hope to achieve a safer environment for all road users on these roads. We are doing this by ensuring the speeds at which vehicles move from a rural area into townships are appropriate and consistent. You will see on some of the roads we have outlined (for example those at Ngā Roto Estate) that we need to formalise speed limits.

Pokuru Road and Kauri Drive (Wairakei Village) have also been identified as roads where changes to speed limits will create safer environments for all road users as they travel into and out of the area. These changes will help to reduce likelihood of accidents and injury.

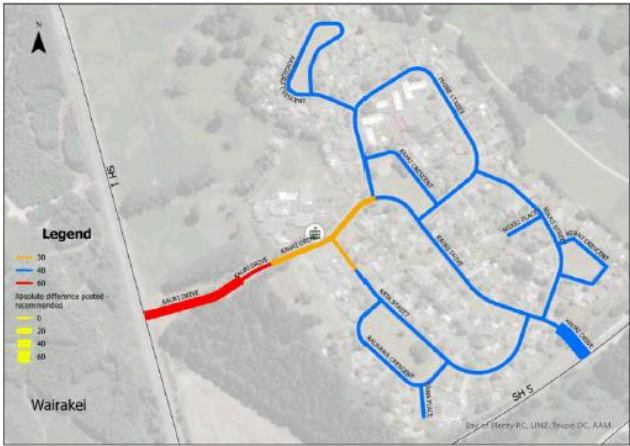
Road	Current Speed Limit	Proposed Speed Limit	Why we're making these changes
Wharewaka - streets in Ngā Roto Estate			Ngā Roto Estate is a new development. We need to formalise speed limits in this area.  Changing to a 40km/h speed limit is consistent with our proposed approach of setting this speed limit for new residential streets throughout the District.
Pokuru Road North (Between SH32 to Kaahu Rd)			Changing to a 60km/h speed limit is consistent with our proposed approach of setting this speed limit for communities in these areas.
Crown Road (from the existing 50km/h sign to Napier Road)			As developments continue to happen in this area, we need a speed limit consistent with the surrounding development.
Taharepa Road (outside Taharepa Shops)			This is a high activity area. Lots of people move around to get to and from the school and the shops. There are also cars pulling into and out of parks often. We need to reduce speed limits to ensure the safety of all road users in the area.
Rifle Range Road and Taharepa (outside the Paetiki Shops)			This is a high activity area. Lots of people move around to get to and from the shops, and the school nearby. Cars also pull into and out of parks often.

			We need to reduce speed limits to ensure the safety of all road users in the area.
Wairakei Village - Kauri Drive (SH 1 town entrance)			Introducing a 60km/h speed limit will prepare road users as they travel into Wairakei Village. It will also enable road users to safely enter the State Highway 1 intersection.
Wairakei - Kauri Drive (near Wairakei School) and Rata Street (near the shops)			Reducing speed limits around schools is a national priority.  We have also included a speed limit reduction for streets connecting to Wairakei Primary School to maximise the safety of pedestrians and other road users.
Wairakei Village - local streets			The change to a 40km/h speed limit is consistent with our proposed approach of setting this speed limit for residential streets throughout the District.
Broadlands Road (Miro Street to the SH1 western on-ramp)			As Taupō's industrial area grows, we need to adjust the speed limits of Broadlands Road to recognise this development and to ensure a safer access for these businesses

**Map - Taupō and surrounds**



Map - Wairakei Village









You can also visit our website to see an online map of the speed limit changes we're proposing to make in more detail at: [LINK](#)

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### Kinloch

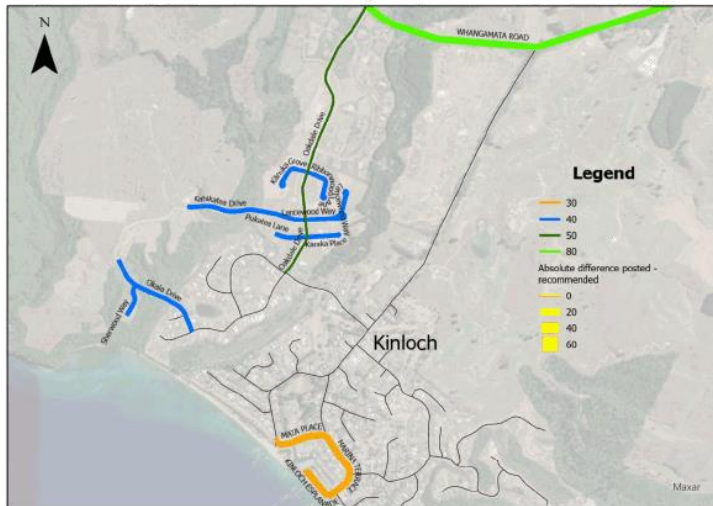
Kinloch is a popular destination for people to live and holiday in. This means there are high pedestrian numbers around the settlement. We are treating the lakefront streets of Kinloch much like town centres across our district and propose 30km/h speed limits along Mata Place, to Marina Terrace and Kinloch Esplanade.

Managing the flow and movement of traffic through a place is also key to creating a safe and appropriate environment for road users as they travel into and out of Kinloch. We need to formalise the current 50km/h speed limit on Oakdale Drive as one of the main access routes for Kinloch. It is important to have 40km/h speed limits on the streets that connect to Oakdale Drive as these are the streets where there are more pedestrians, and children play.

Road	Current Speed Limit	Proposed Speed Limit	Why we're making these changes
New streets*			The speed limits in these areas of new development in Kinloch need to be formalised.  The change to a 40km/h speed limit on these streets is consistent with our proposed approach of setting this speed limit for residential streets throughout the District.
Oakdale Drive*			Oakdale Drive is a new street. The 50km/h speed limit needs to be formalised.
Mata Place to Marina Terrace and Kinloch Esplanade			There are high pedestrian numbers along the Kinloch waterfront streets. Reducing the speed limit to 30km/h is consistent with other high-use pedestrian areas across our District.

\*New streets or roads since the 2018 Speed Limits Bylaw came into effect

### Map



You can also visit our website to see an online map of the speed limit changes we're proposing to make in more detail at: [LINK](#)









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### Turangi

We have recently received a petition from the community in Turangi calling for a change in speed limits along Hirangi Road. We are proposing to drop the speed limit here to 80km/h and looking to include Te Awamate Road as well as part of Atirau Road in this change. These are high use roads, and it makes sense to change them at the same time.

The community has also provided us with feedback that the 80km/h speed limit in Turangi's industrial area is not appropriate. To make this more consistent with surrounding roads, we're also proposing to change the speed limit in this area to 60km/h.

Our priority for the first group of speed management changes recognises town centres as having high pedestrian and vehicle movements. We're proposing a 30km/h speed limit in Turangi town centre where people move to and from shops, or across the township.

Road	Current Speed Limit	Proposed Speed Limit	Why we're proposing changes
Hirangi Road (from State Highway 41 to 240m west of Papua Street) - including Te Awamate Road			We have received feedback from the community requesting a reduced speed limit along Hirangi Road.
Atirau Road (northwest)			It is proposed we reduce the speed limit to 60km/h for consistency within the roading network.
Industrial Area			Vehicles and people move around Turangi's industrial area when accessing different businesses. A lower speed limit will create a safe environment for all people in these areas.
Town Centre Roads			Reducing the speed limit to 30km/h is consistent with other high-use pedestrian areas across the District.

### Map

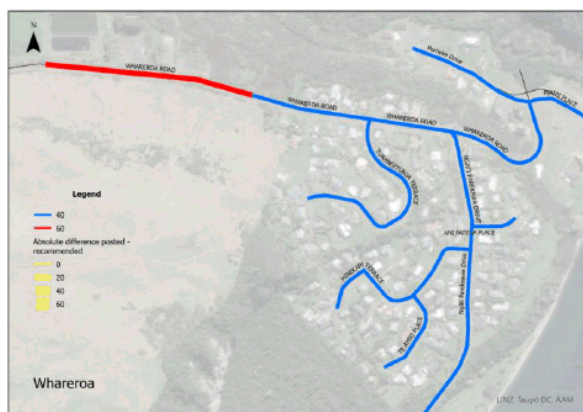
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### Whareroa

Speed limits need to prepare road users entering busier areas where there are more people walking, biking and moving around. We are proposing changes to the speed limits at the entrance to Whareroa and 40km/h limits on all local streets. This approach is a test - we hope to learn how we could introduce similar changes on a bigger scale for larger townships around Taupō District.

Road	Current Speed Limit	Proposed Speed Limit	Why we're proposing changes
Whareroa Road (village entrance)	100	60	Introducing a 60km/h speed limit will prepare road users for slower speed limits as they travel into Whareroa.
Whareroa local streets	50	40	The change to a 40km/h speed limit on these streets is consistent with our proposed approach of setting this speed limit for residential streets throughout the District.

### Map









You can also visit our website to see an online map of the speed limit changes we're proposing to make in more detail at: [LINK](#)

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### Eastern Bays

Our Eastern Bays are high traffic areas with State Highway 1 cutting through them. The streets that adjoin the state highway in each of these settlements often have high numbers of pedestrians and people walking, biking, and playing in the street. To create a safe environment in residential areas we are proposing to formalise some of the already existing speed limits and ensure speed limits are appropriate to the roads that they service.

Road	Current Speed Limit	Proposed Speed Limit	Why we're proposing changes
Waitetoko local streets			The change to a 40km/h speed limit on these streets is consistent with our proposed approach of setting this speed limit for residential streets throughout the District.
Rotongaio Road			The speed limit of this road needs to be formalised. This is a short, low volume road used primarily for community access.
Blake Road			The change to a 40km/h speed limit on this road is consistent with our proposed approach of setting this speed limit for residential streets and roads throughout the District.

### Map

To see a map of the speed limit changes we're proposing to make across the Eastern Bays you can visit [LINK](#)

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Transport Planning and Design  
Level 1, 284 Kilmore Street

## Taupō District Speed Management Plan



Report prepared for

Taupō District Council

January 2022



## Taupō District – Speed Management Plan

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## Executive Summary

ViaStrada Limited has been commissioned by Taupō District Council (TDC) to prepare a speed management plan for the Taupō District. The Speed Management Plan is based on the Waka Kotahi (NZ Transport Agency) Speed Management Guide and will lead to the creation of an implementation plan for safer speeds in Taupō.

Following review of the relevant local, regional and national policies, and in discussion with TDC staff, a series of speed management principles were developed to establish criteria for using different speed limits for different road environment situations.

A prioritisation process was developed to group changes on the Taupō network into three priority categories for implementation. The main focus for Priority 1 changes (within the next two years) are:

- streets around schools and some shopping centres
- rural roads with high safety issues or community concerns
- peri-urban roads where additional development is happening or planned
- redevelopment of the Taupō township centre
- community centres in Kinloch and Turangi
- residential areas of Wairakei, Whareroa, and Wharewaka
- ratification of new or unclassified roads (including new subdivisions)
- additional roads adjacent to these to provide logical network completeness

Other roads, including those requiring additional engineering measures to support changed speed limits, will be implemented at a later date.



## Table of Contents

<b>Executive Summary</b>	<b>iii</b>
<b>1 Introduction</b>	<b>2</b>
<b>2 What is Speed Management and why do we need it?</b>	<b>2</b>
2.1 A safe system	2
2.2 Strategic context	3
2.3 Council's obligations for setting of speed limits	3
2.4 Speed Management Guide and the Speed Management Framework	4
<b>3 Development of the plan</b>	<b>5</b>
3.1 What are the existing issues for Taupō?	5
3.2 What has Taupō done on speed management in the past?	6
3.3 Engagement undertaken	7
3.4 Projects undertaken	7
<b>4 Speed management principles for Taupō</b>	<b>7</b>
<b>5 Speed management priorities for Taupō</b>	<b>8</b>
5.1 Prioritisation method	9
5.2 Speed Management Toolbox	9
5.2.1 Engineering and Infrastructure	9
5.2.2 Stakeholder and Community Engagement	13
5.2.3 Education & Enforcement	13
<b>6 The proposed plan for Taupō</b>	<b>14</b>
6.1 Schools	15
6.2 Rural roads	15
6.2.1 Poihipi Road	15
6.2.2 Mapara Road	16
6.2.3 Whangamata Road	17
6.2.4 Broadlands Road	18
6.3 Taupō township	18
6.4 Other Urban Settlements	19
6.4.1 Kinloch	19
6.4.2 Tūrangi	21
6.4.3 Wairakei and Whareroa	22
6.5 Ratification of new or unclassified roads	23
<b>7 Next steps</b>	<b>23</b>

## Taupō District – Speed Management Plan



## List of Appendices

<b>Appendix A</b>	<b>Strategic context</b>	<b>A-1</b>
A.1	<i>Government Policy Statement on Land Transport 2021/22 - 2030/31</i>	A-1
A.2	<i>Vision Zero and the Safe System</i>	A-2
A.3	<i>Road to Zero 2020-2030</i>	A-3
A.4	<i>Arataki</i>	A-4
A.5	<i>Road to Zero for the Waikato 2020-2030 and Land Transport Plan</i>	A-6
A.6	<i>One Network Road Classification/One Network Framework</i>	A-9
<b>Appendix B</b>	<b>Crash information for the Taupō District</b>	<b>B-12</b>
B.1	<i>Fatal Crashes</i>	B-13
B.2	<i>Serious Crashes</i>	B-13
B.3	<i>Taupō Central</i>	B-15
B.4	<i>Taupō Townships</i>	B-16
<b>Appendix C</b>	<b>MegaMaps for the Taupō District</b>	<b>C-18</b>
C.1	<i>Posted Speed Limits</i>	C-18
C.2	<i>Mean Operating Speeds</i>	C-19
C.3	<i>Safe and Appropriate Speeds</i>	C-19
C.4	<i>Risk Metrics</i>	C-20
C.5	<i>High Benefit Speed Management</i>	C-23
<b>Appendix D</b>	<b>Schools in the Taupō District</b>	<b>D-25</b>
<b>Appendix E</b>	<b>Proposed Priority 1 Speed Limit Changes</b>	<b>E-26</b>
<b>Appendix F</b>	<b>Rationale where recommended speed is different from SAAS</b>	<b>F-34</b>
<b>Appendix G</b>	<b>Infrastructure and Costs</b>	<b>G-39</b>



## 1 Introduction

A road network needs to have an appropriate balance between providing an efficient system for moving people and goods to various destinations, and a safe system that protects road users and other people nearby. It also needs to take into account other considerations such as amenity, environment, travel behaviour change, and the overall views of the local community. A speed management plan is a key tool to help achieve many of these objectives.

By having a consistent speed management strategy for Taupō, it will be easier to communicate the key issues requiring attention and to present a common rationale to the public and elected members.

Road safety risk can be reduced by investing in infrastructure improvements to make a road safer at current speeds, or by managing speeds down through a combination of road design, risk targeted enforcement and education on safe behaviour, all reinforced by speed limits appropriate for the roads. Infrastructure improvements can be costly and not justified on lesser roads; therefore lower speed limits can provide a cost-effective way to achieve significant safety gains across a network at minimal expenditure.

The plan sets out what work needs to be done, by who, where and finally an indication of funding to implement this work, with a focus on the next three financial years of the 2021-24 National Land Transport Programme (NLTP).

## 2 What is Speed Management and why do we need it?

### 2.1 A safe system

The management of vehicle speed is a crucial element of the Safe System. Travel speed leading up to a potential crash directly impacts upon both the likelihood and severity of a crash<sup>1</sup>. One way to reduce the rate of death and serious injury is to set safe and appropriate speeds, recognising that the traditional default 50 km/h and 100 km/h speed limits are no longer fit for purpose.

At lower speeds, the available travel time between recognising a hazard and avoiding a collision increases, providing the driver with greater chance of avoiding a collision or minimising crash speed. If there is a collision, there is less impact energy involved and this will result in less severe injuries. A reduction of as little as 1–2% of the average speed can result in substantially greater reductions in fatalities and serious injuries.

The chance of surviving a crash (or not suffering serious injuries) decreases markedly above certain speeds, depending on the crash type. The critical crash speeds for various crash types are:

- pedestrian struck by vehicle = 30 km/h
- motorcyclist struck by vehicle = 30 km/h
- vehicle striking a pole or tree = 40 km/h
- side impact vehicle-to-vehicle crash = 50 km/h
- head-on vehicle-to-vehicle (equal mass) crash = 70 km/h.

Managing the inter-relationship between travel speed, road infrastructure design and vehicle safety is central to the Safe System approach. Speed management considers the function of the road within the transport network along with how the road is designed, managed and used.

<sup>1</sup> [https://austroads.com.au/publications/road-safety/agrs01/media/AGRS01-21\\_Guide\\_to\\_Road\\_Safety\\_Part\\_1\\_Introduction\\_Safe\\_System.pdf](https://austroads.com.au/publications/road-safety/agrs01/media/AGRS01-21_Guide_to_Road_Safety_Part_1_Introduction_Safe_System.pdf)



## 2.2 Strategic context

Speed management plans are long-term plans that work in line with the development of regional land transport plans. Regional Speed Management Plans should cover interactions with the National Speed Management Plan and the Regional Speed Management Plans of adjacent regions. They should:

- take a whole-of-network approach, consider speed limits and engineering changes in the relevant region,
- address Government outcomes outlined in the Road to Zero strategy, Action Plan and Government Policy Statement (GPS),
- generally align with the calculated “Safe and Appropriate Speed” (SAAS) for travel,
- be consulted on by Regional Transport Committees/RCAs, and
- outline how they will be implemented.

The Road to Zero for Waikato Strategy envisions “accessible journeys free of deaths and serious injuries”.

*Refer to Appendix A for more of the important strategic context underpinning speed management*

This approach has been used to develop the Taupō District Speed Management Plan. Appendix A summarises how this Plan aligns with other local, regional and national strategies and plans.

## 2.3 Council’s obligations for setting of speed limits

The *Land Transport Act 1998*, the *Land Transport Management Act 2003*, and the *Land Transport Rule: Setting of Speed Limits 2017* set out Council’s current obligations and requirements for setting speed limits.

The proposed Tackling Unsafe Speeds programme<sup>2</sup>, will include a framework to improve how councils and Waka Kotahi (NZ Transport Agency) plan for, consult on and implement speed management changes. It will also mean lowering speed limits around schools and a new approach to using safety cameras for enforcement.

This framework will introduce a more consistent and transparent process to how speed limits are planned, managed, and put in place through State highway and regional speed management plans. It also formalises and streamlines the regional approach to speed management Waka Kotahi is taking with RCAs and aligns decisions about speed limit changes with investment in road safety infrastructure.

Under the framework, RCAs will introduce safer speed limits around schools over the 10 years of the Road to Zero strategy, which will include reducing speed limits:

- around urban schools to 30 km/h, with the option of allowing 40 km/h speed limits if appropriate
- around rural schools to a maximum of 60 km/h.

In addition, ownership and operation of the camera network will transfer from the police to Waka Kotahi, and safety cameras will be located on the highest risk parts of the network and have clear signage.

<sup>2</sup> See <https://www.transport.govt.nz/area-of-interest/safety/tackling-unsafe-speeds/>



## 2.4 Speed Management Guide and the Speed Management Framework

The *Speed Management Guide 2016*<sup>3</sup> was created to ensure a consistent sector wide approach is adopted to manage speeds so they are safe and appropriate. It ties in with the ONRC so travel speeds are appropriate for the road function, design, safety and use. Speed management should be targeted to two areas:

- Where there is greatest potential to reduce death and serious injuries; and
- Where there are high benefit opportunities to improve the credibility of speed limits.

The Speed Management Guide draws on four key principles:

1. Functionality – Differentiate speeds and speed limits according to a hierarchical classification, with clear differences between levels, to support self-explaining road systems.
2. Predictability and consistency – Support road user expectations through consistency and continuity of design, speed limit setting, enforcement, communication, adherence to standards and collaboration between partners.
3. Homogeneity – Keep like with like (mode separation) and encourage speeds within a narrow band to increase both safety and efficiency.
4. Credibility – Identify and manage safe and appropriate speeds for an entire route (and manage out of context risks by exception) to support the overall credibility of the limits and of enforcement.

The Guide sets out safe and appropriate speed ranges which consider road function, design, safety and use. The proposed safe and appropriate speeds for different types of road fall within the ranges shown in Table 1. The ranges are not themselves speed limits.

**Table 1: Safe and appropriate speed ranges (adapted<sup>4</sup> from the Speed Management Guide 2016)**

Classification	Straight open road / urban motorways	Curved open road	Winding open road	Urban (not motorways)
<b>Class 1</b> High volume national	<b>100-110 km/h</b> Depends on design and safety risk (e.g. divided 4-5 star, grade separated intersections, safety barriers) and factoring in enforcement thresholds			N/A
<b>Class 2</b> National Regional, Arterial	<b>80 – 100 km/h</b> Depends on safety risk and whether volumes justify investment to bring the road up to 3-star equivalent, also enforcement thresholds		<b>60-80 km/h</b>	<b>50 km/h</b> generally <b>60-80 km/h</b> where safety risk allows, e.g. fewer intersections, mode separation for active users
<b>Class 3</b> Primary and secondary collector				<b>30 – 50 km/h</b>
<b>Class 4</b>	<b>60-80 km/h</b>			<b>30 km/h</b> if high volumes of cyclists/pedestrians

<sup>3</sup> <https://www.nzta.govt.nz/assets/Safety/docs/speed-management-resources/speed-management-guide-first-edition-201611.pdf>

<sup>4</sup> The table has been adjusted to remove the erroneous colour from the first column of road classes, because the intention is to read across all columns (e.g., a Class 2 road may be 50 km/h or 100 km/h).

## Taupō District – Speed Management Plan



Access and low volume access All winding / tortuous	Depending on roadside development, pedestrian and cyclist volumes, whether sealed or not		Recognise access and place <b>10 km/h</b> for shared spaces
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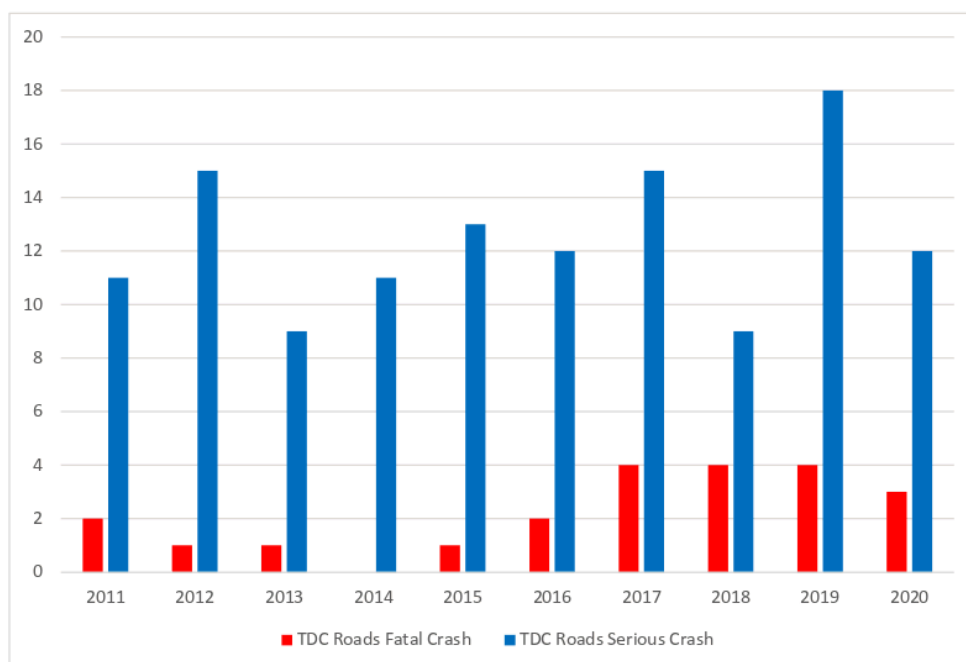
The Speed Management Guide is supported by “MegaMaps”, which is an online information mapping system, developed and maintained by Waka Kotahi to capture key safety, risk and speed management metrics. Appendix C summarises the key MegaMaps information for Taupō District.

### 3 Development of the plan

#### 3.1 What are the existing issues for Taupō?

In the Taupō District, the movement network comprises both rural roads that are winding, hilly and usually two-lane, and also urban streets from central city shopping streets and local residential neighbourhoods to those that move more strategic traffic around the district. There are also many different road users, including pedestrians, cyclists, horses, campervans and tourist vehicles, agricultural vehicles, and heavy vehicles.

A review of the past 10 years (2011-2020) from the Crash Analysis System shows that on Taupō District roads (excluding State Highways) there have been 147 crashes resulting in fatal injury (22) and serious injury (125), including 27 fatalities (see Figure 1).



**Figure 1 Deaths and Serious Injuries on Taupō District roads 2011-20**

The number of fatalities peaked in 2017-2019 when the numbers rose from 0-1 a year to 4 a year consistently for 3 years before coming down to 3 fatalities in 2020. 2019 was the worst year for serious injury crashes with a peak of 18, with an average of 12.5 serious crashes occurring a year for the past 10 years. More detail is provided in Appendix B.

Speed was reported to have played a factor in 36% of the fatal and 20% of the serious crashes.



## Taupō District – Speed Management Plan

### 3.2 What has Taupō done on speed management in the past?

In May 2018, Taupō District Council consulted on proposed speed limit changes<sup>5</sup> and the changes came into effect on 1 December 2018<sup>6</sup>.

Over 20 maps were used to show the proposed speed limits for the different urban areas of the District and the rural roads that connect the communities. The changes to high-risk roads were publicised as shown in Figure 2.

Area	Road	Was	Dec 1
Mangakino	Lake Rd and Rangatira Dr	100 →	80
	Lake Rd existing 50km extended towards Waipapa Rd		50
Kinloch	Kinloch Rd extended 50km/h towards Whangamata Rd		50
Aratitia	Rapids Rd - reduced to 80km/h	100 →	80
Acacia Bay	Wakeman Rd extended existing 50 km/h zone		50
	Acacia Bay Straight - reduced to 80km/h	100 →	80
	Poihipi Rd from existing 80km/h sign to Tukairangi Rd	100 →	80
	Poihipi Rd from Wairakei Dr to existing 80km sign	80 →	50
Wairakei	Wairakei Dr - reduced to 80km/h	100 →	80
	Huka Falls Rd, Huka Falls Loop Rd, Clearwater Ln, Ferndale Way	80 →	50
	Karetoto Rd - reduced to 50km/h		50
Western Bays	Omori Rd - extend existing 50km/h		50
	Omori Rd - reduced to 60km/h	100 →	60
	Pukawa Rd - reduced to 60km/h	100 →	60
Taupō	Tauhara Rd - Rifle Range Rd to Miro St	70 →	50
	Lake Terrace - Airport roundabout to Rainbow Dr	100 →	80
	Lake Terrace - Rainbow Dr to Hawaii St (no holiday speed limit)		50
	Centennial Dr - extend 60km zone to Owen Delany Park		60
	Napier Rd - roundabout to De Brett's	100 →	80
	Napier Rd - De Brett's to Lake Terrace	80 →	50
	Crown Rd - 50km extended, 80km at Napier Rd end		80
	Kiddle Dr reduced to 50km/h	80 →	50

**Figure 2 Recommended Safe and Appropriate speed ranges for road classes**

<sup>5</sup> <https://www.taupodc.govt.nz/repository/libraries/id:25026fn3317q9slqygym/hierarchy/our-council/consultation/documents/speed-limit-changes/TDC%20Speed%20Limit%20Changes%20Consultation%20Document.pdf>

<sup>6</sup> <https://www.taupodc.govt.nz/repository/libraries/id:25026fn3317q9slqygym/hierarchy/Rules-regulations-and-licences/Bylaws/Speed%20Limits%20Bylaw%202018.pdf>



### 3.3 Engagement undertaken

Taupō District Council have ongoing conversations with the community around speed. The Customer Service Requests received show that the community is concerned about speed, with over 30 concerns raised with Council in the past year alone. There has also recently been a petition for a speed reduction on Hirangi Road, Tūrangi (86 signatures).

### 3.4 Projects undertaken

Taupō District Council have been undertaking (or planning to undertake) projects to improve safety in the District. These are as follows:

- Taupō Town Centre Transformation
- Kiddle Drive / Napier Road Roundabout
- Broadlands Road upgrades
- Poihipi Road upgrades
- Whangamata Road upgrades

## 4 Speed management principles for Taupō

Safety is Taupō District Council's top transport priority, and council is committed to reduce harm on their roads and streets.

The overall vision for the Connecting Taupō 2020-2050 - Taupō Transport Strategy (Dec 2020) is:

*Making it easier to get to the people and places we want, safely and sustainably.*

In order of priorities safety remains the top priority. The strategy states:

*Deaths and injuries on our roads are a huge trauma for the people and families involved – and a massive social and economic toll for our communities. Although most fatal and serious crashes in Taupō District occur on State Highways, which are the responsibility of Waka Kotahi (the NZ Transport Agency), the local impacts are significant. Local communities should not have to fear for their safety. We want Taupō to be a safe district for people to live and visit.*

There are six deliverables in the strategy:

- Work in partnership with central government and Waka Kotahi (the NZ Transport Agency) to address unsafe or not fit-for-purpose State highways (Short-term).
- Undertake rural road safety assessments and deliver a Rural Road Safety Programme of works (ongoing).
- undertake urban road safety assessments and deliver an Urban Road Safety Programme of works (ongoing).
- **Implement and regularly review a district wide speed management plan (short-term).**
- Deliver a programme of safety awareness and education (ongoing).
- Play an active role in road safety, alongside our road safety partners (ongoing).

Following on from the national and regional strategy, Taupō District Council do not believe any loss of life is acceptable on the network. Based on the strategic principles summarised in Appendix A.5 of this report (including the safe and appropriate speed ranges shown in Table 1 on page 4), the speed limits and accompanying typical situations are listed in Table 2.

The changes need to be logical and consistent so that users know how to behave in the different speed zones.



Table 2: Proposed speed limit principles

Speed limit	Typical situations
	Town centres or other community areas with high concentrations of pedestrians, cyclists, and “place” functions (e.g. schools and community shopping centres)
	Urban residential streets; may include rural town residential streets if the alignment and road stereotype is suitable, and some streets near to schools.
	School variable speed limits <sup>7</sup> – often a static sign for cost reasons. The following are starting points. If it is a high priority school location, a lower limit may be adopted. <ul style="list-style-type: none"> <li>Urban residential: 30 km/h where the normal speed limit is 50 km/h</li> <li>Rural residential: 40 km/h where the normal limit is 60 – 70 km/h</li> <li>Rural road: 60 km/h where the normal limit is 80 – 100 km/h</li> </ul>
	Urban and rural town collector and arterial streets, where the movement function and/or road stereotype (alignment, land use, intersection density etc) are not aligned with a 40 km/h speed limit. May require appropriate pedestrian and cyclist facilities (crossings, cycle lanes).
	Rural local roads [depending on their function, safety and infrastructure risk profiles]. Typically have a winding or tortuous alignment and includes most unsealed roads. May have high community safety concerns.
	70 km/h is a traditional semi-rural speed limit. Following speed reviews, most of these segments should be either up-rated to 80 km/h (with any required engineering) or down-rated to 60 km/h (subject to appropriate road safety measures).
	Rural local roads [depending on their function, safety and infrastructure risk profiles]. Typically straight/curved undivided roads with few hazards but limited protection such as barriers.
	Interim 90 km/h speed limit on economically important state highways and rural arterial roads where MegaMaps recommends a lower safe and appropriate speed, until such time as these roads can be engineered up to appropriate standards. In practice most such roads should be 80 km/h.
	100 km/h for roads with good alignments and accompanied by suitable engineering such as shoulders, clear zones, horizontal separation (barriers).

## 5 Speed management priorities for Taupō

This plan aims to provide *an implementation programme for the next 10 year including:*

- The proposed changes to speed limits
- Infrastructure to support SAAS limits
- A timeframe when each change will occur
- A more detailed programme for the first 3 years
- Overview of the programme from year 3 to year 10 of the plan

<sup>7</sup> The current setting of speed limits around schools is set in accordance with the Land Transport Rule: Setting of Speed Limits (Rule 54001/2017), the NZ Speed Management Guide (November 2016) and Traffic Note 37. Under the proposed Tackling Unsafe Speeds change to the legislation, 30 km/h zones are being encouraged around schools. It is proposed to seek feedback on this speed at school locations. A new “KURA – SCHOOL” sign (shown here) is also currently out for public consultation to replace the existing “school zone” signs.



## 5.1 Prioritisation method

Table 3 outlines the methods proposed to assign relative priority to speed management measures in Taupō over the next decade; roughly aligning with the next three 3-years NLTP periods. The initial focus is on roads where need has been identified by safety and community demands, particularly where they are already “self-explaining” and thus not requiring considerable engineering or community buy-in to successfully introduce them. There is also a need to formally ratify speed limits for newly created roads, such as subdivisions.

The delivery needs to be prioritised to align with funding for delivery. Initial changes do not have to be expensive (e.g. just road marking and signage) to establish new speed management zones, while other more expensive infrastructure can be provided later, when funding can be sought, to help reinforce proposed speeds for other sections.

**Table 3: Priority assignment method**

Priority	Timeframe		Typical situations
	Consult	NLTP Implementation	
1	2021/22	Years 1-3 (2021/22 – 2023/24)	<ul style="list-style-type: none"> <li>Town centres / <b>high</b> people “place” function</li> <li>School frontages / accesses</li> <li>Top 10% DSI saving network sections</li> <li>High level of public service requests</li> <li>Logical network implementation (e.g. adjacent/parallel to other Priority 1 roads)</li> <li>Confirmation of new subdivision speed limits</li> </ul>
2	2023/24	Years 4-6 (2024/25 – 2026/27)	<ul style="list-style-type: none"> <li>Self-explaining roads not in Priority 1</li> <li>Next 10% DSI saving network sections</li> <li>Priority roads requiring engineering to achieve SAAS</li> </ul>
3	2026/27	Years 7+ (2027/28 onwards)	<ul style="list-style-type: none"> <li>Remote rural roads to align with SAAS, including unsealed roads</li> <li>Other roads requiring engineering to achieve SAAS</li> <li>Other remaining roads identified for change</li> </ul>

## 5.2 Speed Management Toolbox

The Waka Kotahi Speed Management Toolbox<sup>8</sup> identifies key treatment philosophies as infrastructure improvements, enforcement methods, education and vehicle technology based on level of risk, road classification and the key crash types. Effective speed management is likely to be because of a combination of measures.

### 5.2.1 Engineering and Infrastructure

These measures are effective treatments in helping manage speeds and severity outcomes. When developing the plan, the treatment must be location specific but there are a wide range of tools that can be applied.

These can be corridor applications for neighbourhood areas such as slow streets (30 km/h or 40 km/h) and cycle lanes or can be for individual spots such as raised platforms, signalised crossings, or a combination of the two. Figure 3 to Figure 6 illustrate some of the possible treatments that can be used.

<sup>8</sup> <https://www.nzta.govt.nz/assets/planning-and-investment/knowledge-base/Uploads/Documents/Speed-Management-Toolbox-and-Appendices-combined-Final-July-2016.pdf>



Figure 3 Low speed street with raised platform and markings



Figure 4 Separated cycle facilities



**Figure 5 Raised platform priority crossing**



**Figure 6 Signal controlled crossing for people walking and cycling**

In rural locations and more traffic dominated/high speed environments, other tools such as barrier systems may be applied, in addition to gateways/thresholds for rural townships to alert drivers to the change in environment (see Figure 7 and Figure 8). If the safety issue is largely confined to isolated intersections, then dynamic speed reduction signs triggered by side road traffic (see Figure 9) could be a more targeted solution.

Road marking measures are a low-cost method to influence existing road user speeds on roads. For example, removal of centrelines (see Figure 10) has been shown to reduce observed travel speeds – as well as having the advantage of reducing marking maintenance costs.



Taupō District – Speed Management Plan



*Figure 7 Flexible road safety barrier and guardrail on rural roads (Waka Kotahi)*



*Figure 8 Gateways to townships on rural roads*



*Figure 9 Rural intersection activated warning signs (RIAWS)*



*Figure 10 Removal of centreline on rural road*

## Taupō District – Speed Management Plan



Appendix G summarises the estimated capital and operating costs for the Priority 1 sites. These costs include new static and variable message signs, associated road-marking, traffic calming measures, and pedestrian crossing upgrades.

### 5.2.2 Stakeholder and Community Engagement

To change speed limits on the network or to introduce speed calming measures TDC work closely with the community and stakeholders (businesses, schools, organisations) to inform people and seek feedback on the proposals.

For changing the speed limits, a set process is included within the Setting of Speed Limits Rule. This process will be followed for the Speed Management Plan, and initial discussions have been held with interest groups, Community Boards and the Council.

### 5.2.3 Education & Enforcement

TDC work with road safety partners to deliver a number of campaigns across the network to educate people about road safety and reducing speed whilst travelling (see Figure 11). The latest campaigns are targeted to the following:

- Driving courses and workshops
- Sharing the road
- Cycling courses
- Distractions
- Drive straight campaign
- Be prepared
- Intersections
- Motorcycle safety
- Pedal Safe cycle and road safety skills
- Speed is one risk good drivers can minimise
- Young drivers

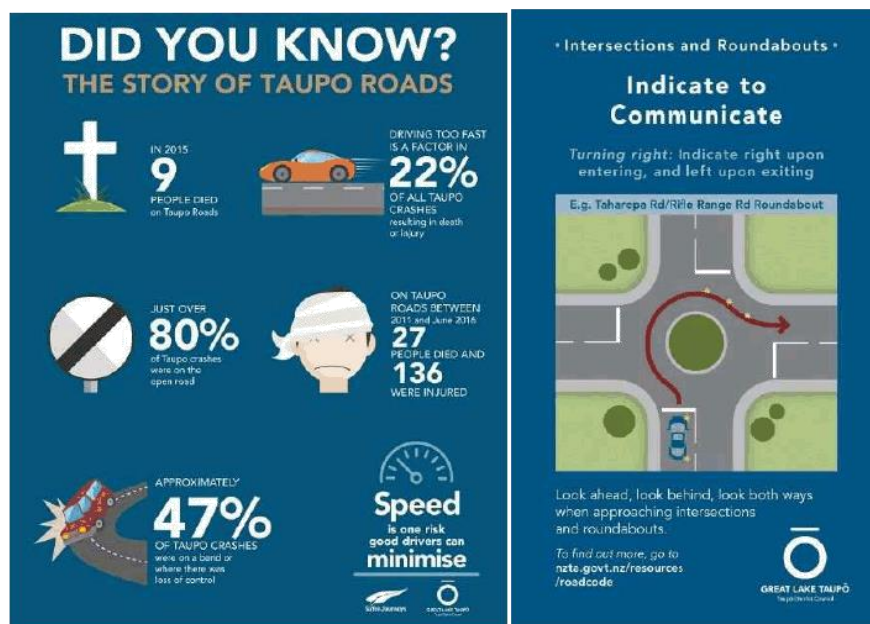


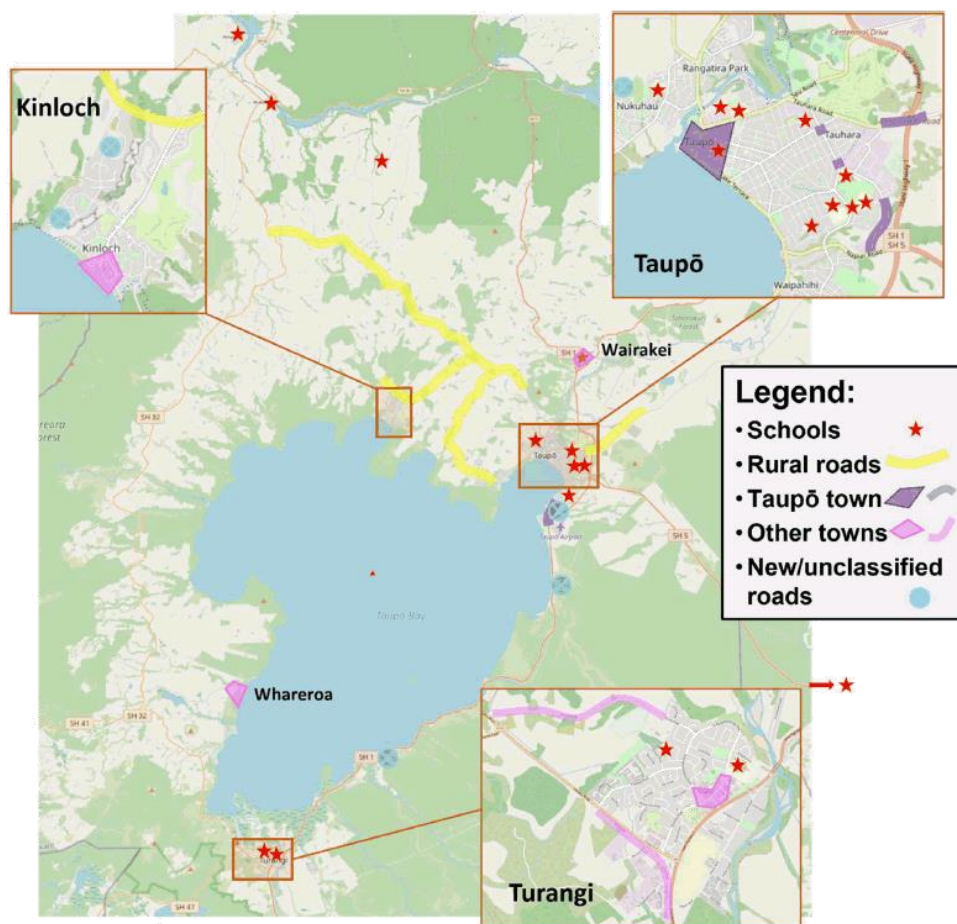
Figure 11 Recent publications for road safety programmes



## 6 The proposed plan for Taupō

As well as seeking agreement on the speed management principles for the District outlined in Section 4, this first Plan also proposes identifying the initial suite of “priority 1” speed management changes for implementation in the 2022-24 period, based on the priorities identified in Section 5.1. Figure 12 provides an overview of the Priority 1 speed management changes. The sections below discuss the areas considered for consultation in this first phase.

Other areas of the District warranting changes will be rolled out in the subsequent priority periods. This Plan will be updated in 2024 and 2027 to provide specific details of the implementation for Priority 2 and 3 roads respectively.



**Figure 12 Overview of Priority 1 speed management proposals**

Appendix E lists the relevant roads/sections proposed for change.

This priority plan does not highlight sections of State Highway in the District warranting speed limit changes, e.g. parts of SH41 near Tokaanu. Discussion with Waka Kotahi should be undertaken to align any relevant local road changes with adjacent state highway ones.



## 6.1 Schools

Appendix D summarises all of the schools in the Taupō district; most of them are in urban areas including smaller towns, with five on rural routes. Three are on state highways, including two in rural areas, and so discussion would be needed with Waka Kotahi regarding changes to speed limits at these locations.



*Figure 13 Tauhara Primary School along Taharepa Road*

Depending on their location and other adjacent land uses, some streets adjacent to schools will warrant permanent speed limit changes, e.g., Kotare Street adjacent to both Taupō Intermediate and Taupō Hospital. For others, a part-time variable speed limit might be more appropriate on busier roads, e.g., Spa Road near Taupō-nui-a-Tia College, Taharepa Road near Tauhara Primary School (see Figure 13).

## 6.2 Rural roads

Four specific sections of rural corridor with high safety concerns have been identified for Priority 1 treatment. At the same time, any adjacent cul de sac side-roads off these routes will also be changed to the same speed limit, if not already changed.

### 6.2.1 Poihipi Road

Poihipi Road is identified as one of the top 10% DSI reducing roads in MegaMaps. However, the section analysed is one continuous section approximately 25 km long (probably explaining why it garnered enough expected DSI reductions over its length), which does not accurately reflect the differences in road geometry and crash history along it.



**Figure 14 Western end of Poihipi Road**

The westernmost section from SH32 to Wereta Road is relatively narrow and winding with a moderate crash history, and thus easily justified in being reduced to an 80 km/h speed limit (see Figure 14). The section east of this to the current 80 km/h limit at Tukairangi Road is largely of a better geometric standard (with further plans to improve this corridor) and may be hard to get support for introducing a lower speed limit, despite a reasonable cluster of crashes between Whangamata and Oruanui Roads.

One alternative option is to retain the existing 100 km/h limit (or a 90 km/h speed limit if allowed) together with the installation of 70 km/h activated intersection warning signs at the problematic intersections of Whangamata, Mapara and Oruanui Roads. For now, the proposal is to introduce an 80 km/h section at the easternmost end (~5 km) until the Kinloch turn-off (Whangamata Road) and the westernmost section (~9 km) until Tirohanga Road, with the section in between (~13 km) being posted at 90 km/h.

#### **6.2.2 Mapara Road**

The southernmost section of this route near Acacia Bay was reduced from 100 km/h to 70 km/h in 2006; however the immediately adjacent 1 km section is identified as a top 10% DSI saving section, and land use intensity is increasing here. In addition, at least three service requests for traffic calming or speed limit changes have been made along the rural section of this road. The northern section from Poihipi Road is relatively narrow and winding, and an 80 km/h limit is recommended here (see Figure 15). Approaching Acacia Bay, we suggest a 60 km/h limit until reaching the existing 50 km/h limit.



*Figure 15 Mapara Road south of Poihipi Road*

#### 6.2.3 Whangamata Road

This is the main route into Kinloch from Taupō and is currently posted at 100 km/h. As well as a few service requests, there have been a handful of crashes recorded through to the turnoff to the township. We propose an 80 km/h speed limit from the turn-off at Poihipi Road to west of Oakdale Drive and the turn-off to Ruru Lodge, to reflect the level of peri-urban development in the vicinity of Kinloch (Figure 16).



*Figure 16 Whangamata Road just east of Kinloch*



#### 6.2.4 Broadlands Road

The growing level of development on the fringe of Taupō warrants extending the current 50 km/h limit to the Eastern Arterial (SH1). Further north-east, the level of peri-urban development and some crashes warrant having an 80 km/h speed limit to the View Road intersection.

### 6.3 Taupō township

The immediate areas of focus for the first phase of speed limit changes are:

***The central town area (see Figure 17 Te Heu Heu Street in central Taupō)***

- Various streets adjacent to schools, as discussed in section 6.1.
- Some community shopping centres, especially those in proximity to schools, pedestrian crossings, and other areas with high people use.
- The southernmost sections of Crown Road and Lake Terrace, which are both seeing increasing levels of adjacent development and accompanying intersections.
- ), in conjunction with the Town Transformation works (generally all streets west of Titiraupenga Street and south of Spa Road). For consistency, this should also include the tourist park areas of Ferry Road, Redoubt Street and Story Place.



***Figure 17 Te Heu Heu Street in central Taupō***

- Various streets adjacent to schools, as discussed in section 6.1.
- Some community shopping centres, especially those in proximity to schools, pedestrian crossings, and other areas with high people use.
- The southernmost sections of Crown Road and Lake Terrace, which are both seeing increasing levels of adjacent development and accompanying intersections.

A case could be made to also introduce a lower (40 km/h) speed limit on Lake Terrace along the shoreline section in town (approximately west of Taharepa Road), particularly in light of the most recent double-fatality there.



## 6.4 Other Urban Settlements

### 6.4.1 Kinloch

Many new residential streets in Kinloch have wide cross sections and gentle curves. Although nearly all Kinloch streets are classified “access” in the ONRC, the network pattern is comprised of collectors and culs-de-sac. While MegaMaps treats them all uniformly with a SAAS of 40 km/h, it will be very difficult to achieve an operating speed substantially below 60 km/h on those functioning as collectors (e.g. Kenrigg Road and Oakdale Drive – see Figure 18) while the culs-de-sacs are typically so short that 30 km/h would be achievable (see Figure 19).

Signposting a variety of speed limits could be confusing and lead to a “forest” of signs, yet achieving a safer residential speed environment could require substantial and costly traffic calming.



*Figure 18: rural residential roads like Oakdale Drive have a rural cross section and again will be difficult to achieve operating speeds of even 50 km/h*



*Figure 19: New short/narrow streets like Sherwood Way have tighter curves and pedestrians walking in the street, hence may have low operating speeds and be “self-explaining” at 40 km/h or less*

Options for setting lower and safer speed limits in Kinloch include:

- **Set differential limits with collectors retaining 50 km/h and narrower/shorter streets at 40 km/h<sup>9</sup>.** With this option, the community should be consulted regarding Mata Place, Marina Terrace and Kinloch Esplanade (see Figure 20). These streets have a high density of driveways compared to the newer subdivisions and “feel” slower, as well as many pedestrians near the lakeshore. However, drivers accessing the marina may not be locals as invested in community safety so achieving a lower speed limit while minimising noise may require a number of horizontal deflection devices.
- **Make the majority of the town 40 km/h.** This is easy to understand and can be achieved with gateway signs on Kinloch Road and Oakdale Drive. As previously noted, the design of many streets communicates a higher operating speed and therefore substantially more traffic calming treatments will be required.

<sup>9</sup> This is the option displayed in the current version of the online map



**Figure 20: Mata Place, adjacent to the marina, will have a lot of activity happening during the summer periods**

**Timing:** while a few roads are already self-explaining (e.g. Candu Lane), it is recommended to consider changes in phase 3 as most roads fall into the prioritisation category of “other roads requiring engineering to achieve SAAS”. As a priority 1 initiative, we propose a 30 km/h for the streets bordering the marina, and recording the new subdivision roads not already captured in the speed limits register.

#### 6.4.2 Tūrangi

As with Kinloch, most urban residential roads are fairly wide and have gentle curves. Unlike Kinloch, most Tūrangi roads are generally flat with excellent sight lines. Therefore, immediate attention is focused on the sections of road where concerns have been raised, namely:

- Te Rangitautahanga Road near Tongariro School
- Hirangi Road from SH41 to the urban limit (see Figure 21)
- Atirau Road near the industrial area and UCOL



**Figure 21: Hirangi Road on the outskirts of Tūrangi**

The central shopping area also warrants a lower speed limit to reflect the level of activity there, and this is well supported by the road cross-section (see Figure 22). For consistency, connecting this with the section adjacent to Tongariro School makes sense.



**Figure 22: Te Rangitautahanga Road through the centre of Tūrangi**

#### 6.4.3 Wairakei and Whareroa

It is proposed to trial (in the first tranche of changes to be consulted this year) a wholesale lowering of speed limits across two entire villages as a pilot for the wider application of the Safe and Appropriate Speed approach. Wairakei has been selected because it is relatively homogenous, small, and has generally narrow streets that are “self-explaining” (feel slower) to drivers. With only two access streets, signposting should be straightforward and may be accompanied by new welcome signage incorporating cultural elements. Whareroa, in the western bays of Lake Taupō, has only one road access, but the streets are wider.



## 6.5 Ratification of new or unclassified roads

There are a number of roads in the Taupō network that do not yet formally have a specified speed limit in the current Council register. Typically they fall into three categories:

- New subdivisions recently constructed, where the speed limits have yet to be confirmed, e.g. Ngāroto Estate (Wharewaka, south Taupō), Oakdale and Okaia Drive / Sherwood Way (Kinloch). Typically they will be 30-50 km/h.
- Some minor rural roads (often unsealed) not captured by the existing bylaws, e.g. Rotongaio Road and Blake Road (Waitahanui) and streets within Waitetoko. There are also some paper roads identified in the network that have not been made into formed roads to date, e.g. Okahuroa Road south of Waitetoko.
- Private roads not captured by existing bylaws, typically either small residential lanes (e.g. Hansen Court, Birchwood Lane) or forestry roads (e.g. Tram Rd, Kaiangaroa Off-road Highway). Technically it is the responsibility of the relevant road owner to determine an appropriate speed limit on each of these roads.

Under the forthcoming proposed 2021 Setting of Speed Limits Rule, a default speed limit is allowed to apply if speed limit is not recorded either under the new speed limit register or an existing bylaw. We recommend that a default limit of 30 km/h apply to any new road in the future until the appropriate limit is confirmed.

## 7 Next steps

This Plan has been developed in conjunction with Taupō District Council staff and informed by preliminary feedback from a full Council workshop (Oct 2021). Feedback was also sought from staff at Waka Kotahi (NZ Transport Agency) and the Regional Safe Network Working Group (supported by RATA, the Regional Asset Technical Accord).

Following presentation of the draft Speed Management Plan and Priority 1 roads for consultation to Council in February 2022, the draft Plan will go out for public consultation, with an expected consultation period through to May 2022.

Following any changes identified to the draft Plan, it is expected that the final Plan will be presented to Council for approval in June 2022, with implementation of the Priority 1 works in the financial year from 1 July 2022.

In keeping with the likely process outlined in the draft Setting of Speed Limits Rule 2021, the Plan will be updated in 2023/24, with current Priority 2 speed management works (amended if necessary) targeted for implementation from 1 July 2024. A similar cycle is proposed for three years later when the Plan will be further updated, and the current Priority 3 works implemented.



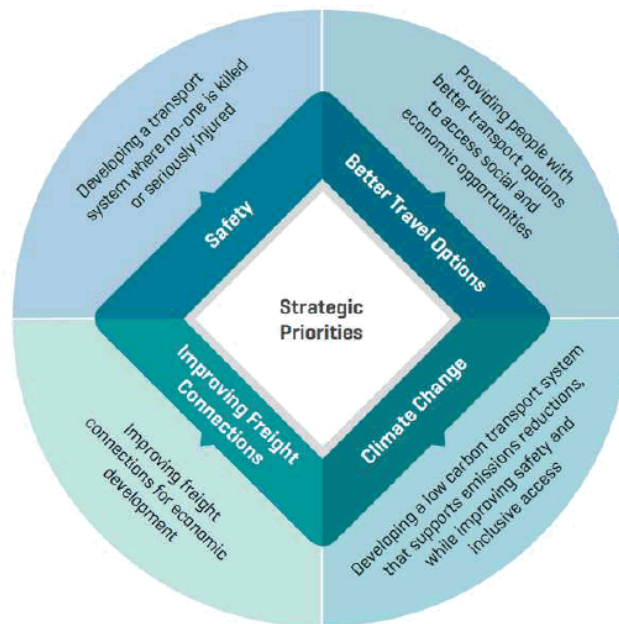


## Appendix A Strategic context

### A.1 Government Policy Statement on Land Transport 2021/22 - 2030/31

The Government Policy Statement<sup>10</sup> sets out how investment is allocated towards achieving the Government's transport priorities.

The Government has identified four strategic priorities for land transport investment to best contribute to improving our communities' wellbeing and liveability. These are summarised in Figure 23.



**Figure 23 Government Strategic priorities**

The purpose of the transport system is to improve people's wellbeing, and the liveability of places. It does this by contributing to five key outcomes, identified in the Ministry of Transport's Transport Outcomes Framework<sup>11</sup>, as shown in Figure 24.

<sup>10</sup> See <https://www.transport.govt.nz/area-of-interest/strategy-and-direction/government-policy-statement-on-land-transport/>

<sup>11</sup> See <https://www.transport.govt.nz/area-of-interest/strategy-and-direction/transport-outcomes-framework/>



## Taupō District – Speed Management Plan

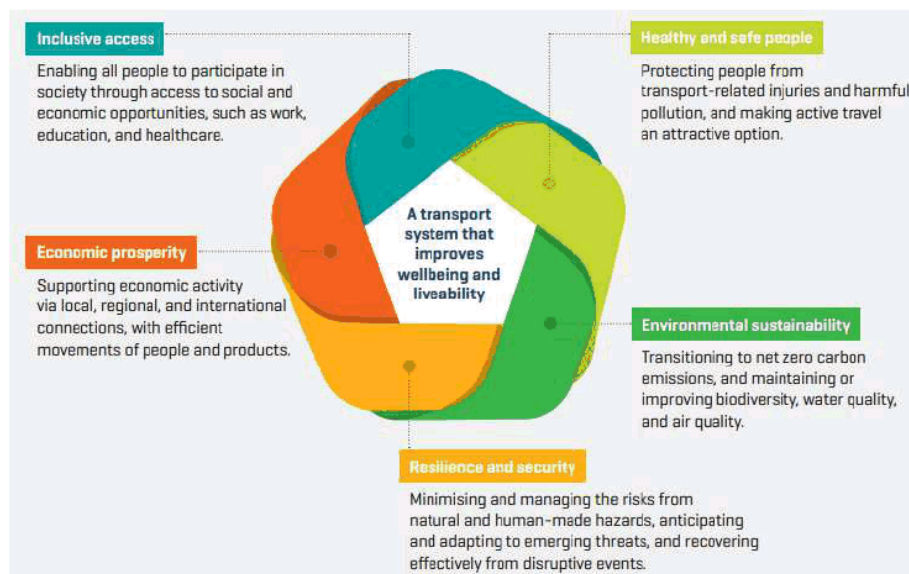


Figure 24 Transport Outcomes Framework

The primary focus of the safety priority is to develop a transport system that advances New Zealand's vision that no-one is killed or seriously injured while travelling. New Zealand roads will be made substantially safer. Safer travel will also improve wellbeing and liveability through providing inclusive access, economic prosperity and resilience.

## A.2 Vision Zero and the Safe System

Vision Zero is a global movement to end traffic-related fatalities and serious injuries by taking a systemic approach to road safety<sup>12</sup>. The premise of this strategy is that road deaths and injuries are unacceptable and preventable. First implemented as the national road policy in Sweden in 1997, Vision Zero has now been adopted by more than 20 cities around the world.

Underlying the Vision Zero strategy is the Safe System – a holistic safety approach that shifts responsibility from the people using roads to the people designing them, integrating core management and action areas to create a safe mobility system forgiving of human error. The structure of an effective Vision Zero strategy embodies the Safe System approach. As the policy concept of Vision Zero gains traction, cities must ensure that the Safe System's key principles and action areas are applied to each new context, considered holistically both in policy documents and practical implementation as cities develop their road safety strategies.<sup>13</sup>

The Safe System approach seeks to create a safe and forgiving road system that makes the safety of people a priority. It does this through four guiding principles:

- We promote good choices but plan for mistakes.
- We design for human vulnerability.
- We strengthen all parts of the road transport system.

<sup>12</sup> See <https://www.nzta.govt.nz/safety/what-waka-kotahi-is-doing/nz-road-safety-strategy/road-to-zero-resources/vision-zero-for-system-designers/>

<sup>13</sup> <https://visionzerochallenge.org/vision-zero>

## Taupō District – Speed Management Plan



- We have a shared responsibility.

### A.3 Road to Zero 2020-2030

Road to Zero<sup>14</sup> is the Government's road safety strategy 2020-2030 and replaces the Safer Journeys Strategy 2010-2020. It sets out a vision of a New Zealand where no one is killed or seriously injured in road crashes. This means that no death or serious injury while travelling on our roads is acceptable.

There are five key focus areas under Road to Zero (summarised in Figure 25):

- Infrastructure improvements and speed management
- Vehicle safety
- Work-related road safety
- Road user choices
- System management



<sup>14</sup> See <https://www.transport.govt.nz/area-of-interest/safety/road-to-zero/>



**Figure 25 Five focus areas for Road to Zero**

There is a need to strengthen all parts of the system so that, if one part fails, other parts will still protect the people involved.

#### **A.4 Arataki**

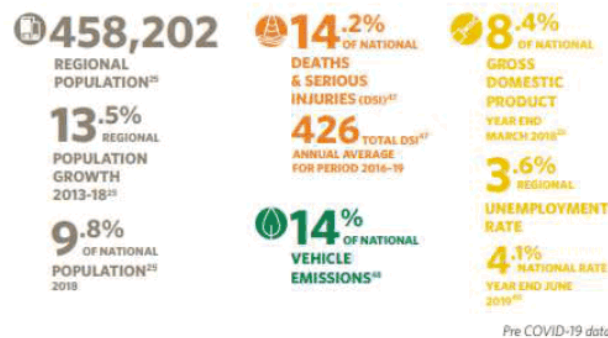
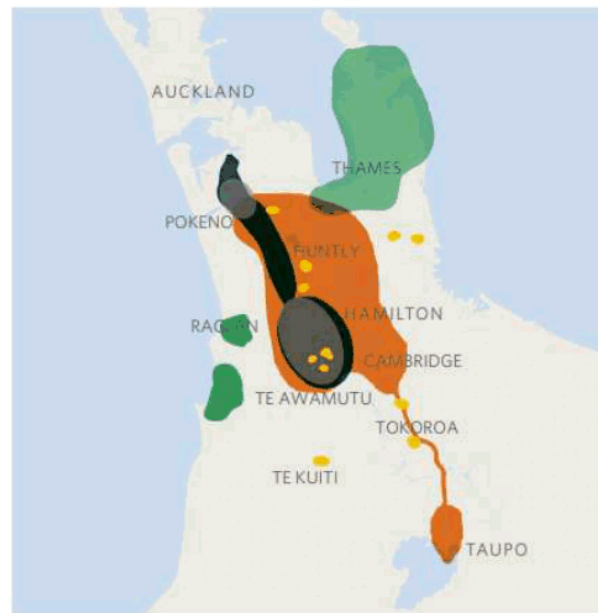
Arataki<sup>15</sup> tells the national story of the land transport system and is made up of three pan-regional and 14 regional, place-based summaries. The Government Policy Statement sets out how investment is allocated towards achieving the Government's transport priorities.

The regional summary for the Waikato<sup>16</sup> states that the region has a very poor safety record, with issues around crashes at intersections, runoff road and head-on crashes, and crashes involving vulnerable road users, speeding, alcohol and drug impairment, and people not wearing seatbelts. These are exacerbated by the complexity of the network and high proportion of road transport movements through and within the region (see Figure 26).

<sup>15</sup> See <https://www.nzta.govt.nz/planning-and-investment/planning/arataki/>

<sup>16</sup> See <https://www.nzta.govt.nz/assets/planning-and-investment/arataki/docs/regional-summary-waikato-august-2020.pdf>

## Taupō District – Speed Management Plan



**Figure 26 Regional Issues for Waikato**

The area of focus recommends supporting the implementation of the Road to Zero: New Zealand's road safety strategy 2020–2030 and the associated Action plan 2020–2022, and regional safety strategies, with a particular emphasis on:

- continuation of safety treatments targeting high-risk intersections, and run-off road and head-on crashes on high-risk rural roads (rural roads are roads with speed limits >80 km/h)
- separated facilities and infrastructure improvements in areas with significant levels of walking and cycling
- road policing and behaviour change programmes with a focus on alcohol and drug impairment, people not wearing seatbelts and speeding
- safety treatments on high-risk motorcycle routes



### A.5 Road to Zero for the Waikato 2020-2030 and Land Transport Plan

The Road to Zero for the Waikato strategy<sup>17</sup> sets out a vision of “accessible journeys free of deaths and serious injuries” (see Figure 27).

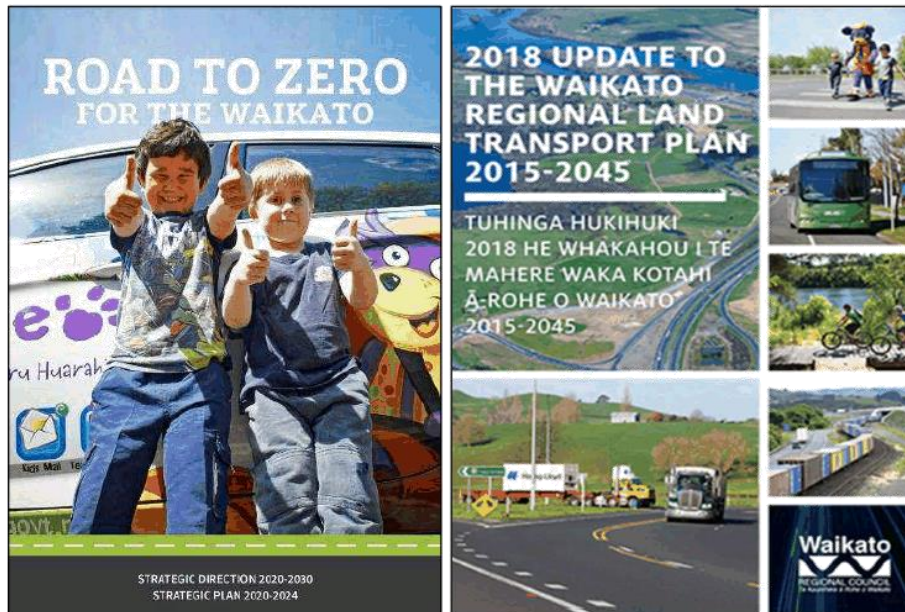


Figure 27 Waikato Region Strategic Guidance

This means:

- in the long term no one dies or is seriously injured moving around our region on the transport network;
- residents and visitors can make safe transport choices that are appropriate to their needs, abilities and circumstances.

The national Road to Zero interim target is a 40 per cent reduction in deaths and serious injuries (from 2018 levels) by 2030. The regional target is the same. As part of the Safer Roads priority, the regional response (see Figure 28) is to implement infrastructure improvements and consistent speed management which targets highest risk, which means applying safe and appropriate speeds across the regional network through speed management plans.

<sup>17</sup> See <https://www.waikatoregion.govt.nz/council/policy-and-plans/transport-policy/road-safety-strategy/>



Figure 28 Road to Zero for the Waikato

The overall Waikato Regional Speed Management **objectives** for the management plan, agreed as part of the Regional Transport Committee Meeting (1 July 2019), are:

- To plan for and implement speed management on both state highways and local roads, to reduce deaths and serious injuries.
- To work collaboratively to support the Waikato Region to achieve a regionally consistent approach to speed management in the region to reduce the risk of death and serious injury, in line with the Regional Road Safety Strategy targets.
- To bring stakeholders and the community along the speed management journey, using and providing new approaches to change the conversation on speed, and taking a common sense approach so that speed management changes have strong public acceptance and support.
- Plan, programme and implement the highest benefit speed opportunities for the top 10% high risk parts of the regional roading network by 2021.

The following regional speed management **principles** outline how speeds are to be managed and the changes implemented:

- We will work with stakeholders in partnership to engage with our communities to implement positive speed management outcomes across the region and influence positive behaviour change.



## Taupō District – Speed Management Plan

- We will use the Safe System approach, focusing on the three pillars of safe speeds, safe road use, and safe roads and roadsides, working towards zero deaths and serious injuries on the region's roads.
- We will work together to ensure consistent and accelerated implementation of safe and appropriate speeds across the region, prioritising the highest risk parts of our roading network that deliver the highest benefits in death and serious injuries savings.
- We will address wider parts of the roading network where appropriate, taking a logical area wide approach to speed management which is self-explaining to road users.
- We will manage speeds that are safe and appropriate to rural and urban environments and safe and appropriate for all users of the roading network.
- We will implement speed management in accordance with legislative requirements and in line with best practice guidance.

The following regional speed management **policies were** set by the Regional Transport Committee:

- Speed management across the Waikato region will be coordinated by Waikato Regional Council and the NZ Transport Agency, in partnership with territorial authorities and the NZ Police, via the Waikato Regional Speed Management Plan.
- The speed management component of the NZ Transport Agency's Safe Network Programme will be implemented in the Waikato region through the Waikato Regional Speed Management Plan.
- A holistic approach to speed management will be applied, supplementing speed limit changes with other speed management tools including engineering interventions where appropriate.
- An area or catchment based approach incorporating both state highways and local roads (One Network Approach) will be used when addressing the top 10 percent benefit sites to ensure we get the highest benefit from speed management interventions.
- Speed management will be coordinated via a [to be determined] approach that improves decision making and saves both costs and time. [Note: holding policy for outcome of institutional arrangement review].
- The region will use a consistent communications and engagement approach, as outlined in the Waikato Regional Speed Management Plan.
- The approach to speed management in the Waikato region, as outlined in the Waikato Regional Speed Management Plan, is flexible and responsive to incorporate changes to national policy on speed management.
- A consistent speed management regime will be applied across the region that is self-explaining to road users.
- Speed Limits will be set in accordance with the Land Transport Rule: Setting of Speed Limits (Rule 54001/2017) and the NZ Speed Management Guide (November 2016). For the Waikato region the following speed limit regimes are recommended to ensure a consistent speed management approach across the region:
  - A 30 km/h speed limit for CBD/town centres with high concentrations of pedestrians and/or cyclists.
  - A 40 km/h speed limit for urban residential areas.
  - An 80 km/h or 60 km/h speed limit regime on local roads in rural areas [depending on their function, safety and infrastructure risk profiles].
  - Roads should not have speed limits higher than 80 km/h without physical separation

## Taupō District – Speed Management Plan



- *Speed limits around schools will be set in accordance with the Land Transport Rule: Setting of Speed Limits (Rule 54001/2017), the NZ Speed Management Guide (November 2016) and Traffic Note 37. For the Waikato region the following speed limit regimes are recommended to ensure a consistent speed management approach around schools in the region:*
  - *A permanent or variable 40 km/h speed limit for schools in urban residential areas<sup>18</sup>*
  - *A permanent or variable 60 km/h speed limit for schools in rural areas.<sup>19,20</sup>*

Note: The last point around speed limits at schools is subject to change due to the proposals consulted on in 2020/2021 around tackling unsafe speeds.

## A.6 One Network Road Classification/One Network Framework

The One Network Road Classification (ONRC) is a classification system. It divides New Zealand's roads into eight categories based on how busy they are, whether they connect to important destinations, or are the only route available. Figure 29 illustrates graphically how the system works.

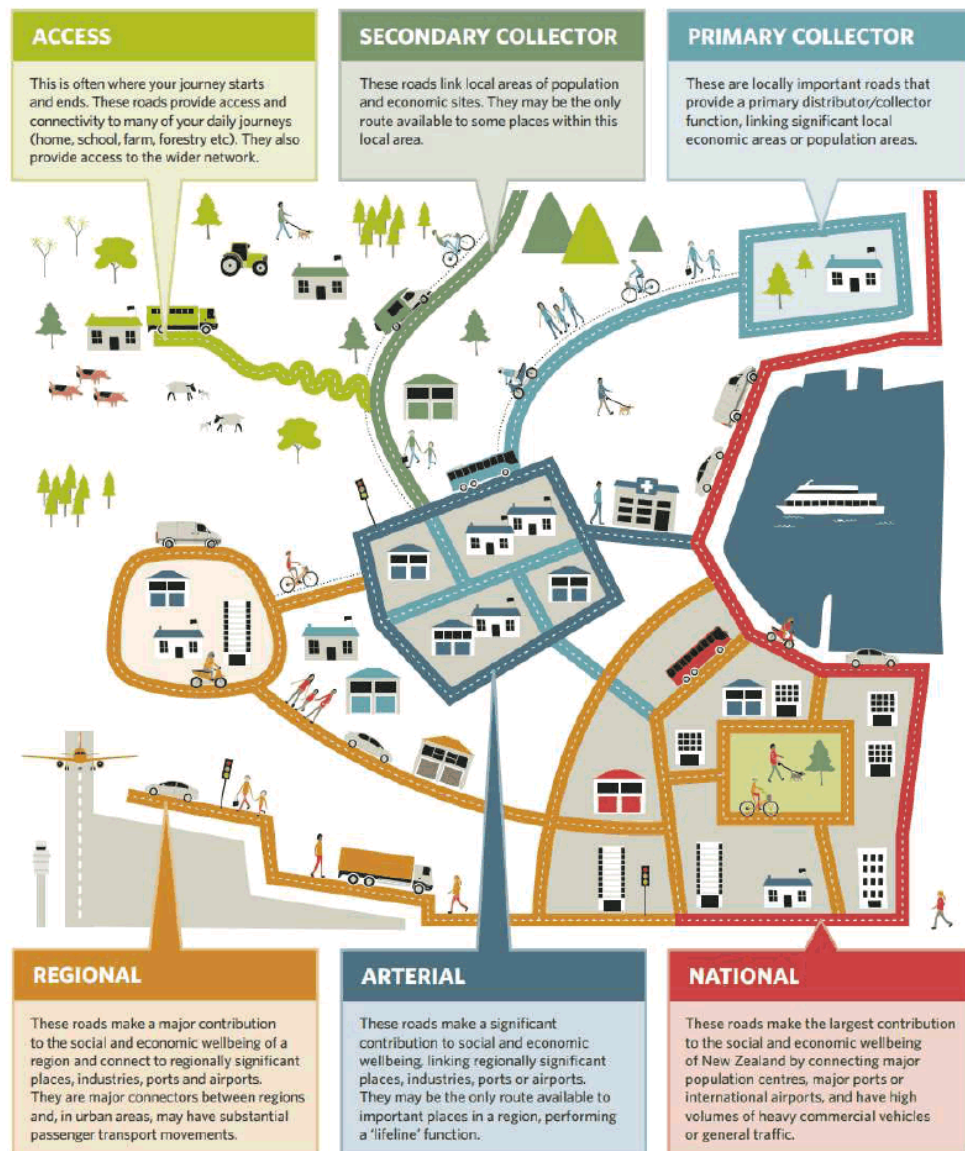
<sup>18</sup> The 40 km/h variable speeds apply at times of greatest risk (before and after school) and have general approval by NZTA (conditions apply). Current national policy is for 40 km/h speed around schools in urban areas but 30 km/h is under active consideration at national and regional level.

<sup>19</sup> The 60 km/h variable speed limit applies at times of greatest risk (before and after school) and only applies where there is turning traffic risk. 60 km/h variable speed limits require specific site approval by NZTA

<sup>20</sup> Road controlling authorities must currently aim to achieve mean operating speeds less than 10% above permanent speed limits at all times (e.g. 44 km/h for 40 km/h speed limits and 66 km/h for 60 km/h speed limits), and variable speed limits while operating (clause 4.4(2)(c) of the Rule).



## Taupō District – Speed Management Plan



**Figure 29 One Network Road Classification (ONRC)**

The ONRC is being replaced by the One Network Framework (full implementation is due by 2024<sup>21</sup>). The new One Network Framework acknowledges the transport network also has a 'Place' function. This means roads and streets are destinations for people, as well as transport corridors. The new framework also introduces classifications for different modes of transport, recognising that our roads and streets

<sup>21</sup> <https://www.nzta.govt.nz/roads-and-rail/road-efficiency-group/one-network-framework/about-the-onf/the-journey/stage-3/>



have different functions for different modes. Figure 30 illustrates the new ONF categories that will be introduced.

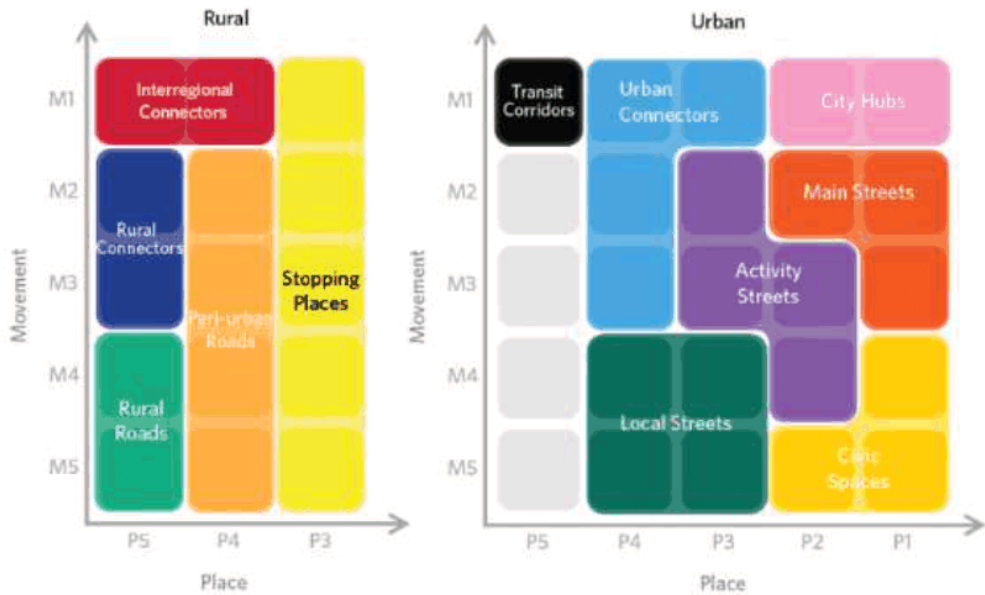


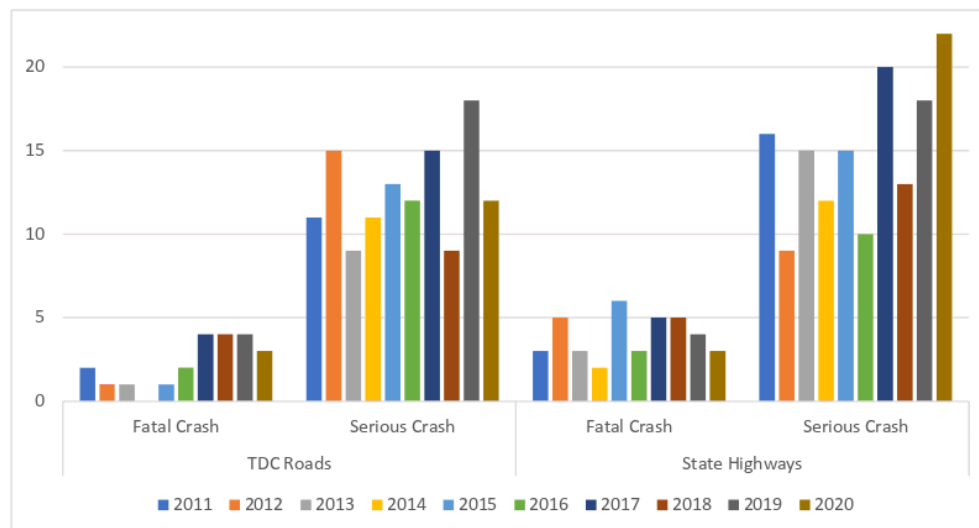
Figure 30 One Network Framework (ONF)

The evolution of the ONRC responds to the recognition that shared, integrated planning approaches between transport and land use planners will result in better outcomes. ‘Systems thinking’ allows us to link strategies and policies together and support more holistic decision-making that in turn improves the liveability of places. Until full adoption of the One Network Framework, terminology used in the ONRC will be used.



## Appendix B Crash information for the Taupō District

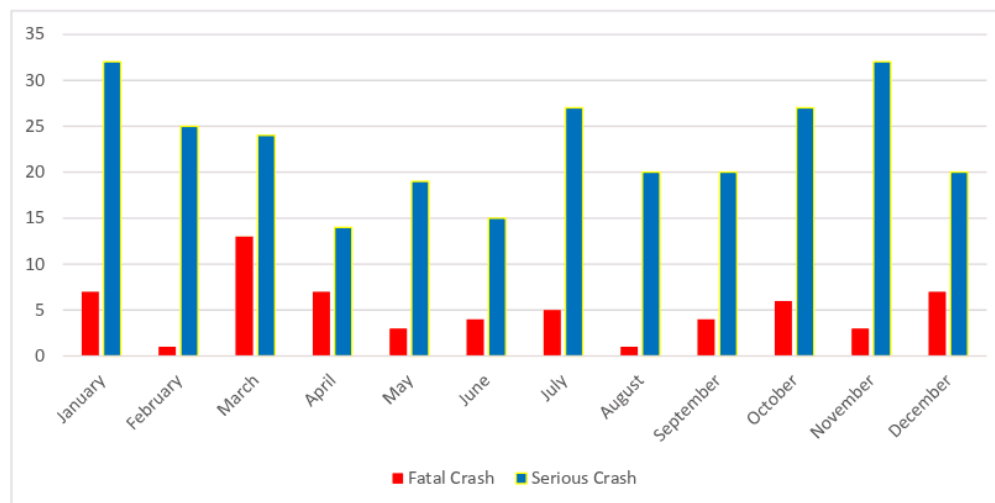
A review has been undertaken of the Waka Kotahi Crash Analysis System (CAS) for the Taupō District for a 10-year period (2011-2020).



**Figure B-31: Fatal and Serious crashes in Taupō District**

There have been 336 crashes in the ten-year period covering the Taupō District including State Highway roads. Of the 336 crashes, 61 have been reported as fatal crashes and 275 have been recorded as serious crashes. There have been more fatal and serious crashes on the State Highway network.

Reported crashes are those that are attended by police and a Traffic Crash Report (TCR) is completed. It is unlikely that all crashes in the District are recorded (particularly less severe crashes) due to under-reporting rates in both rural areas but also crashes involving vulnerable road users in urban areas.



**Figure B-32: Fatal and Serious crashes in Taupō District by month**

## Taupō District – Speed Management Plan



As shown in Figure A-2 Crash rates are generally higher during Spring and Summer months (and July), when it is likely that there are increases in the number of visitors to the area.

### B.1 Fatal Crashes

There have been 22 fatal crashes on TDC roads in the last 10 years, resulting in 27 fatalities and 17 other injuries; see Table B-1. There are two hotspots identified in the fatal crash data, being Broadlands Road (Reporoa – Taupō) and Tirohanga Road (Atiamuri – Poihipi Road). The two roads have a posted speed of 100km/h and crashes were as a result of loss of control (bend and straight) and then head on.

**Table B-1: Fatal locations**

Row Labels	Number of Fatal Crashes	Sum of Fatal injury count	Sum of Serious injury count	Sum of Minor injury count	Sum of Non-injury count
ACACIA HEIGHTS DRIVE	1	1	0	1	0
BROADLANDS ROAD	4	4	2	1	0
CENTENNIAL DRIVE	1	1	0	1	0
FOREST ROAD	1	1	0	0	1
MAPARA ROAD	1	1	0	0	0
MATEA ROAD	1	1	0	0	0
MAUNGATERA ROAD	1	1	2	0	1
POIHIPI ROAD	1	1	0	0	1
RIFLE RANGE ROAD	1	1	0	0	1
TAMAMUTU STREET	1	1	0	0	1
TAUTAHANGA ROAD	1	1	0	1	0
TE RANGITAUTAHANGA ROAD	1	1	2	0	0
TIROHANGA ROAD	4	9	1	1	1
WAIPAPA ROAD MANGAKINO	1	1	1	4	1
WAIRAKEI DRIVE	1	1	0	0	3
WHANGAMATA ROAD	1	1	0	0	1
<b>Grand Total</b>	<b>22</b>	<b>27</b>	<b>8</b>	<b>9</b>	<b>11</b>

The fatalities included two pedestrians, two cyclists and two motorcyclists. Eight of the crashes had speed identified as a contributing factor, although typically travel speed plays an important part in the ultimate severity of a crash. Alcohol/drugs were also a contributing factor in 11 fatal crashes.

### B.2 Serious Crashes

Across the Taupō District including on State Highways, there were 275 reported serious crashes. The main contributing factors are as follows:

- Alcohol/drugs 36%
- Lost control 32%
- Position on road 23%
- Speed (inappropriate/misjudged – 20%)

Of the 125 serious crashes that occurred on TDC roads, the primary crash type again is the loss of control on open roads.



Taupō District – Speed Management Plan

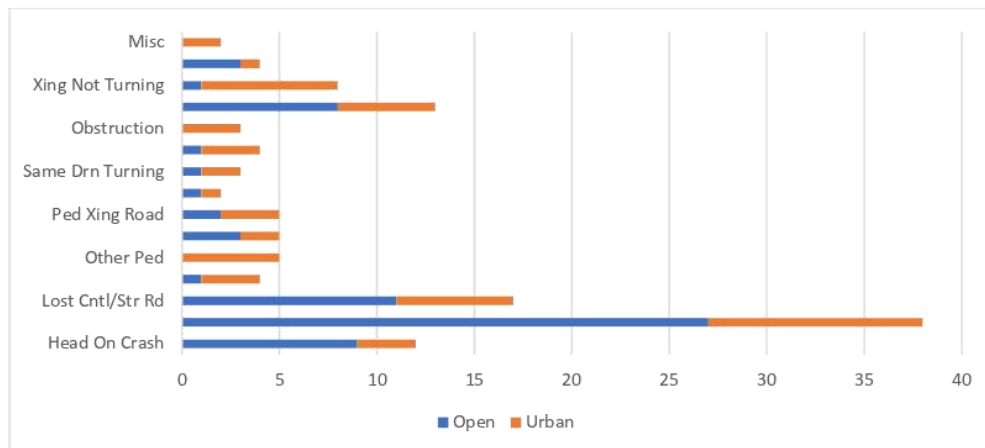


Figure B-33: Serious crashes on open and urban Taupō District Roads

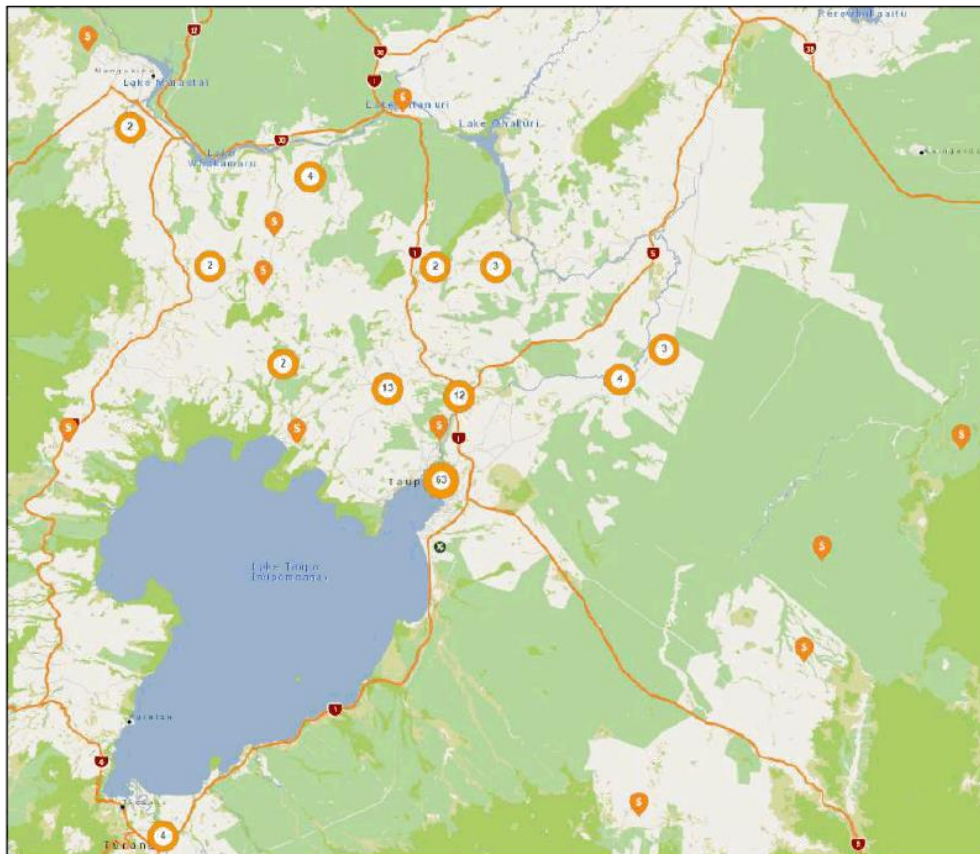


Figure B-34: Serious crashes on open and urban Taupō District Roads

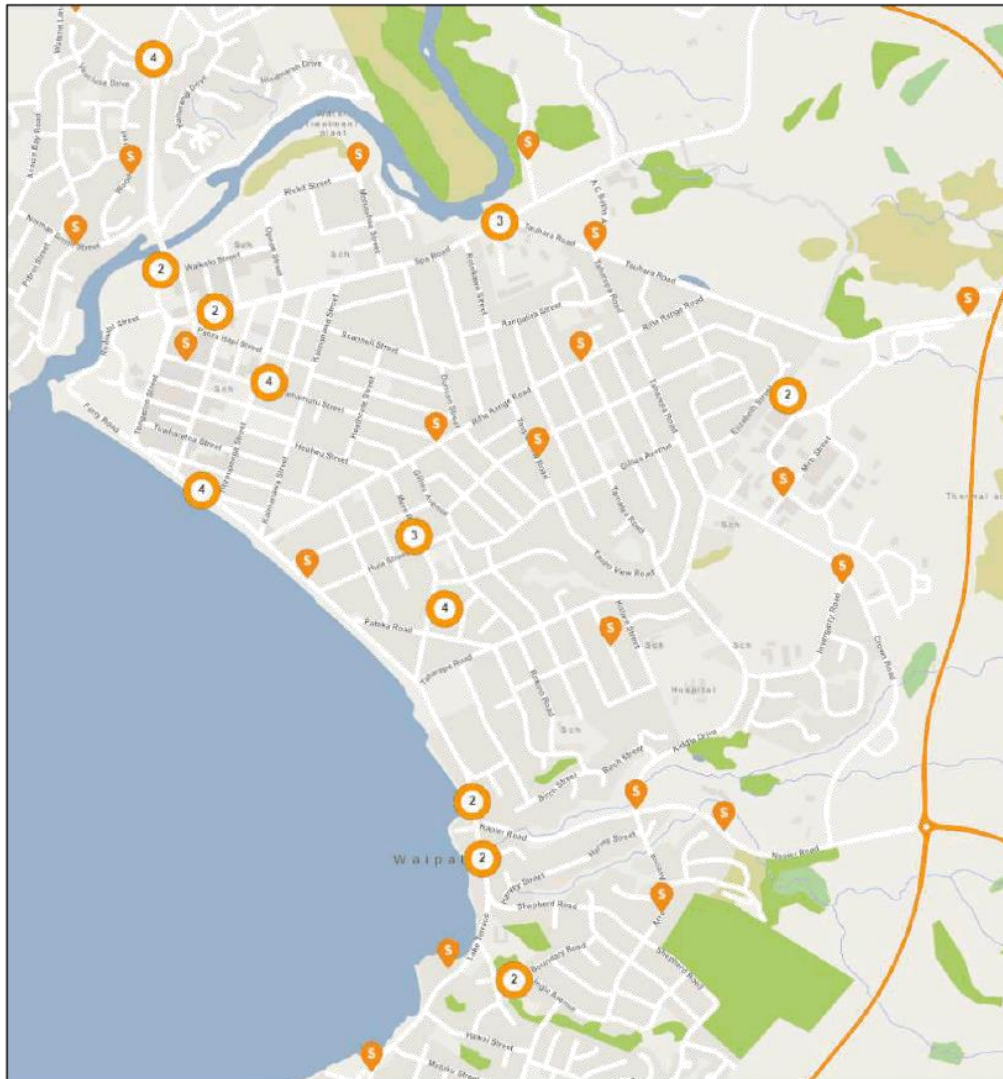
The greatest proportion of serious crashes occurred in central Taupō township, with two smaller clusters to the west of the SH1/SH5 intersection on or around Wairakei Drive, Poihipi Road, and Oruanui Road.

## Taupō District – Speed Management Plan



### B.3 Taupō Central

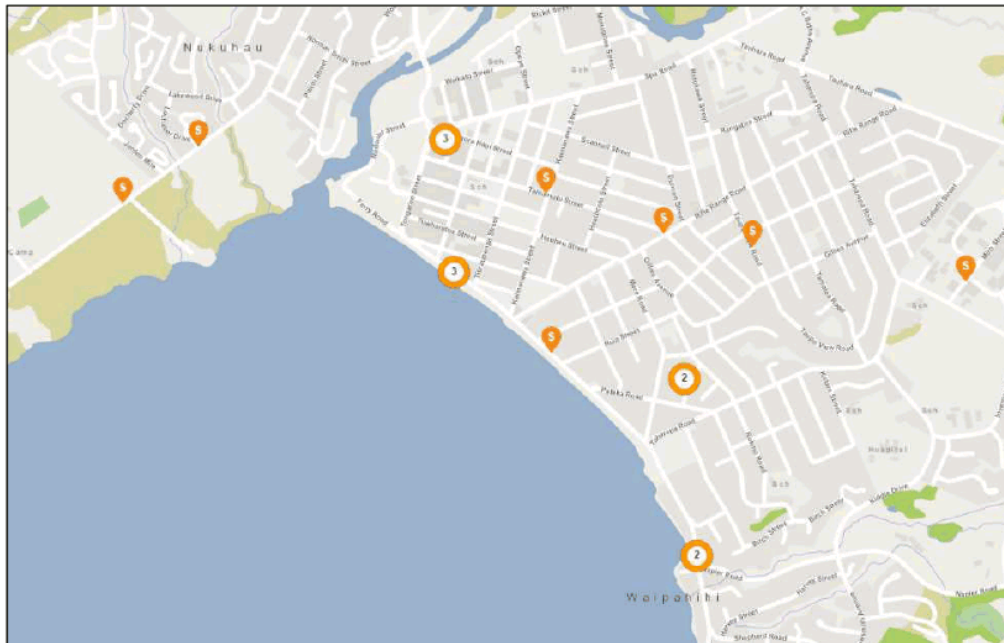
Figure A-5 shows the serious crashes that have been reported in central Taupō. There are some clusters, mainly at intersections including Wairakei Drive/Poihipi Road and Tauhara Road/Spa Road, and then on links in the central city area including Lake Terrace, Spa Road, Tamamutu Street and then Mere Road to the east.



**Figure B-35: Serious crashes in Central Taupō township**



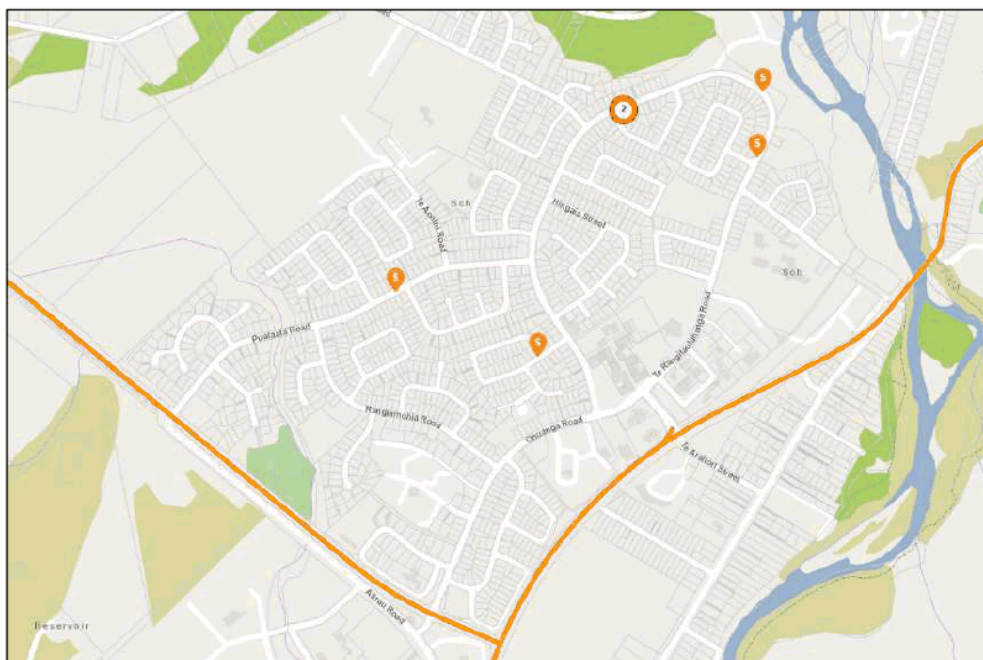
## Taupō District – Speed Management Plan



**Figure B-36: Serious crashes in Central Taupō township for walking/cycling road users**

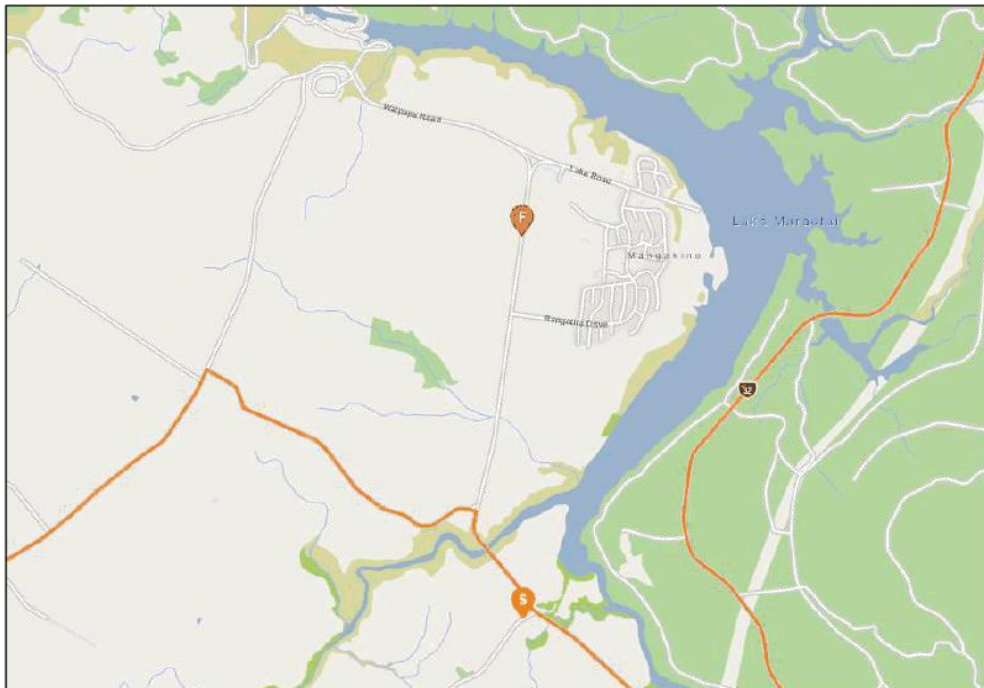
### B.4 Taupō Townships

There are a number of townships in the Taupō District. Fatal and serious crashes have occurred in these locations (excludes state highways), except for in Kuratau, Omori & Pukawa, Tokaanu or Motuoapa.

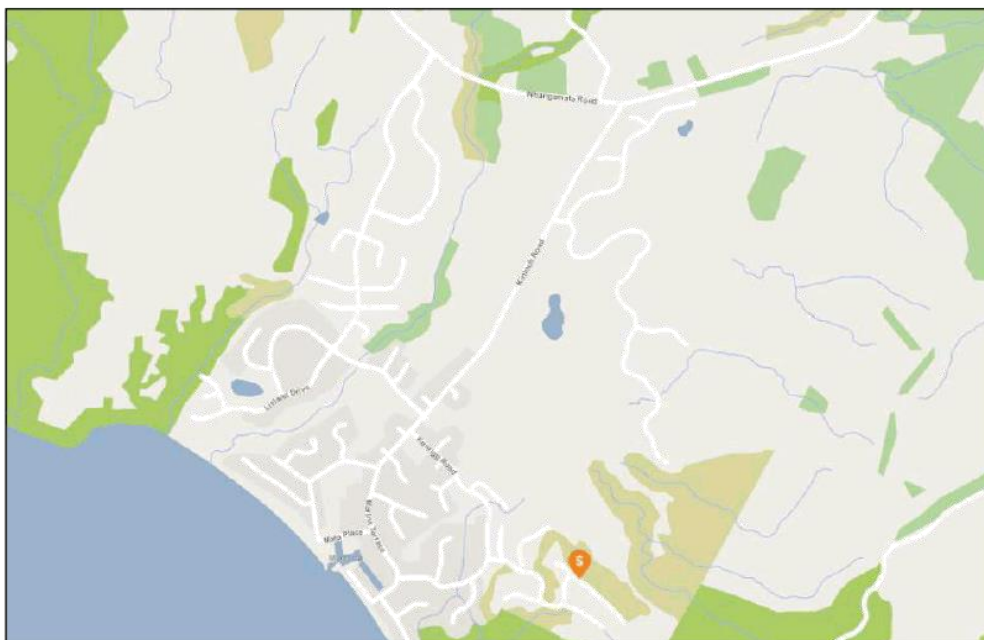


**Figure B-37: Fatal and serious crashes in Tūrangi**

Taupō District – Speed Management Plan



**Figure B-38: Fatal and serious crashes in Mangakino**



**Figure B-39: Fatal and serious crashes in Kinloch**



## Appendix C MegaMaps for the Taupō District

Developed and maintained by Waka Kotahi (NZ Transport Agency), MegaMaps is the primary data source to support the development of the speed management plan.

### C.1 Posted Speed Limits

The posted speed limit layer shows that roads are mainly 100 km/h in rural areas and 50 km/h in urban areas with some 70 km/h sections. A few 60 and 80 km/h sections were introduced in late 2018.

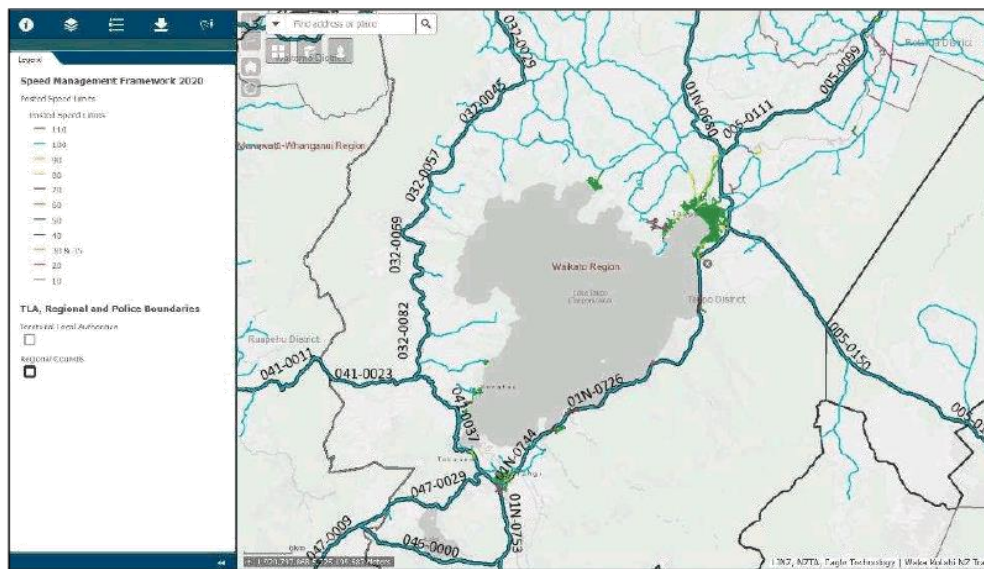


Figure C-1: Posted speed limits in Taupō District

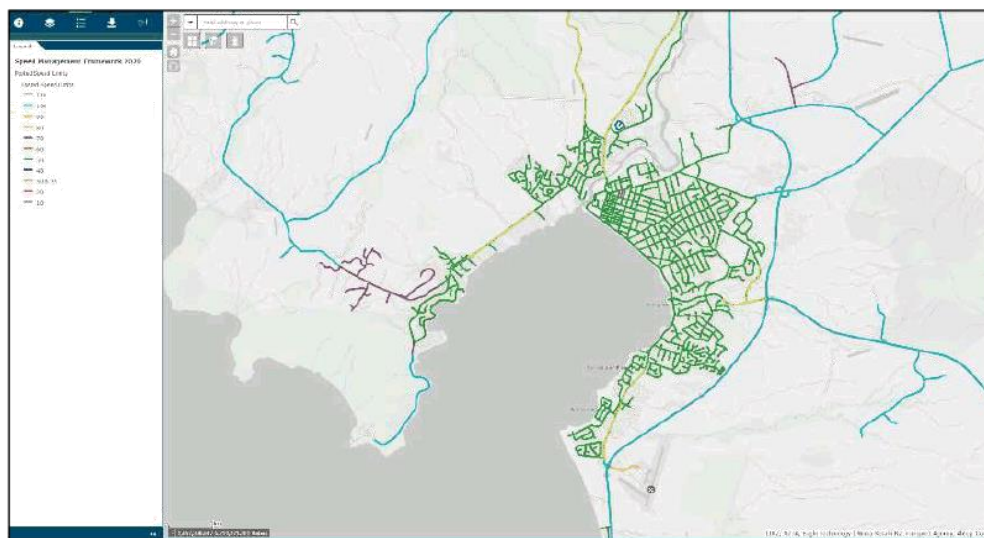


Figure C-2: Posted speed limits in Taupō Central

## Taupō District – Speed Management Plan



## C.2 Mean Operating Speeds

The mean operating speed layer already shows that drivers are already driving at lower speeds than the posted speeds particularly on the roads between State Highway 32 and State Highway 1.

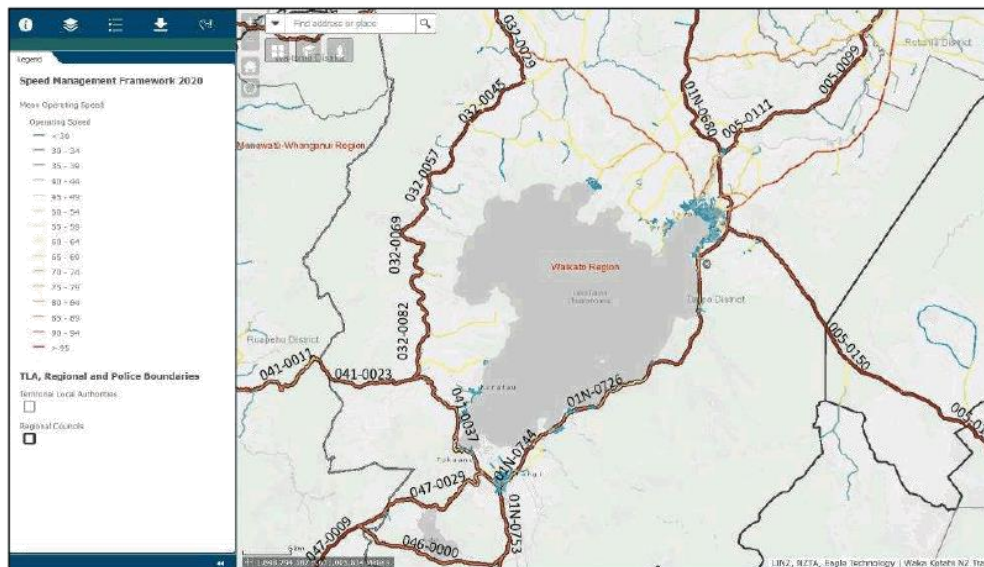


Figure C-1: Appendix Posted speed limits in Taupō District

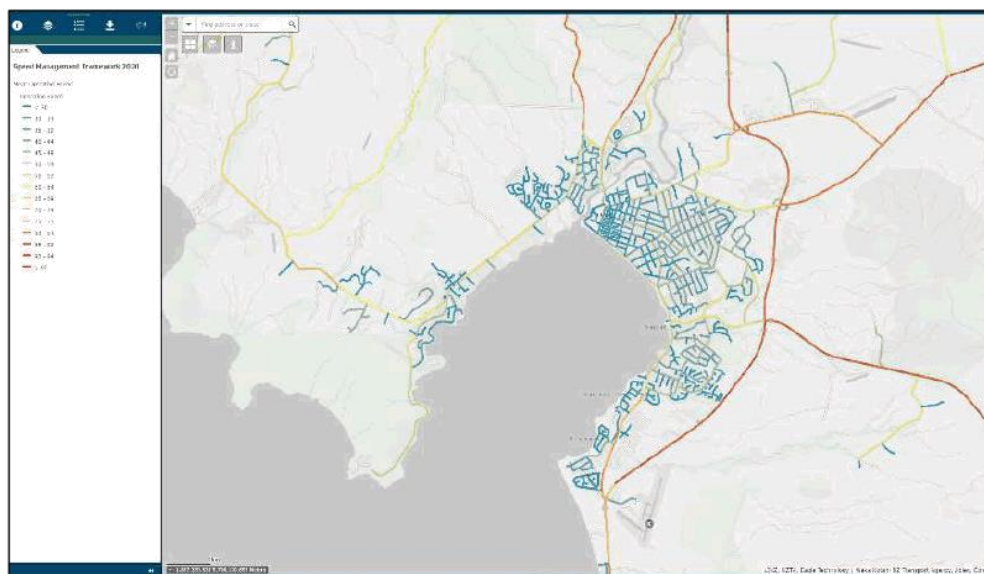


Figure C-2: Appendix Posted speed limits in Taupō Central

## C.3 Safe and Appropriate Speeds

The safe and appropriate speed is based on a speed being appropriate for the road function, design safety and use (takes both safety and efficiency into account).



## Taupō District – Speed Management Plan

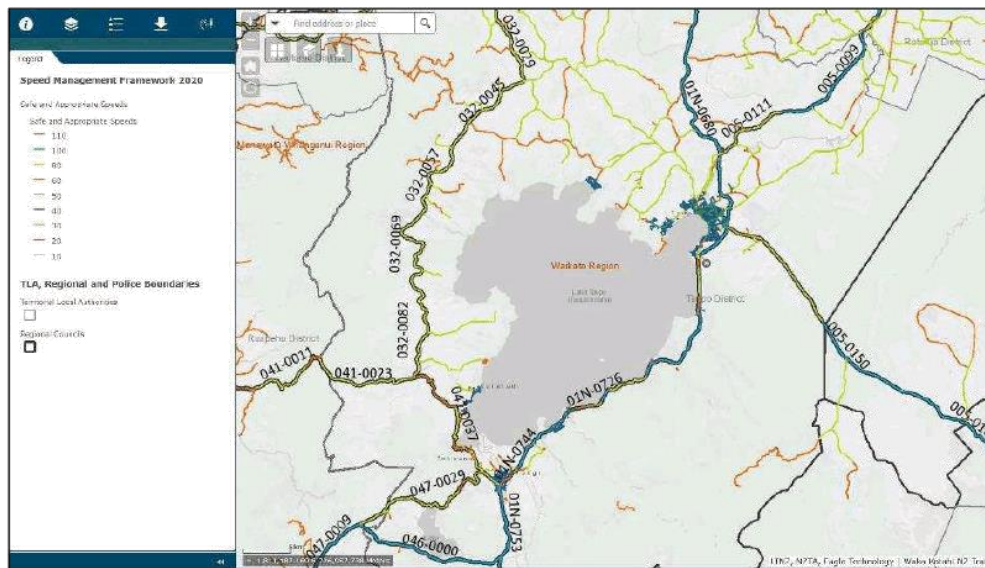


Figure C-3: Safe and Appropriate Speeds in Taupō District

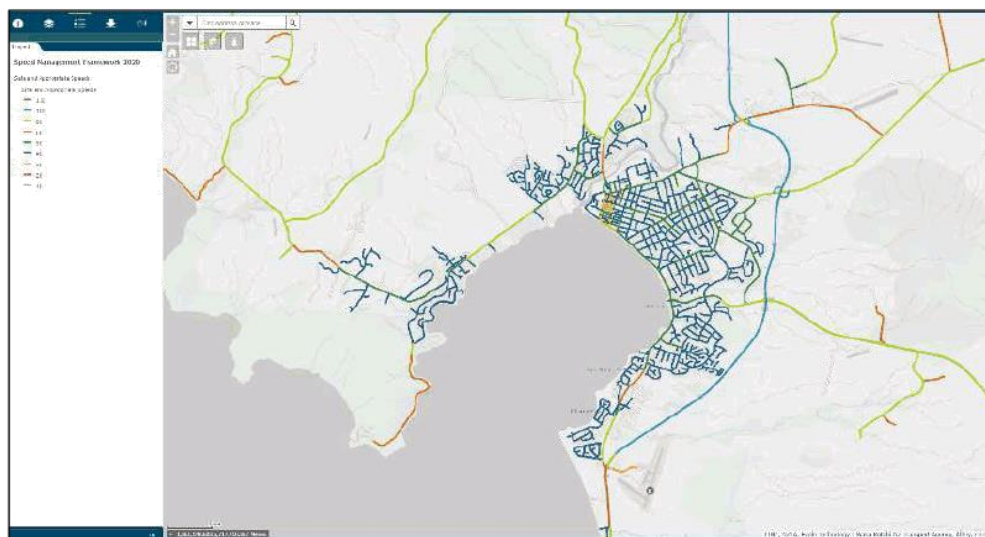


Figure C-4: Safe and Appropriate Speeds in Taupō Central

#### C.4 Risk Metrics

The safe and appropriate speed combines the infrastructure risk rating score with the collective and personal risk metrics.

The Infrastructure Risk Rating (IRR) is a predictive road assessment methodology designed to proactively assess road safety risk and is a significant input to the speed management framework. The IRR uses eight key features that impact safety risk including road stereotype, alignment, carriageway width, hazards, land-use, intersection and access density and traffic volume.

Collective and personal risks along a corridor are used to incorporate crash risk. **Personal risk** represents the crash risk exposure to each individual vehicle travelling along a corridor. It is the **governing road**

## Taupō District – Speed Management Plan



**safety metric in classifying safe and appropriate speeds. Collective risk** is a measure of crash density at a network level and is one of the **governing factors in prioritising corridors** where speed management is likely to reduce DSI's. It is a secondary factor in classifying safe and appropriate speeds on higher speed rural roads.

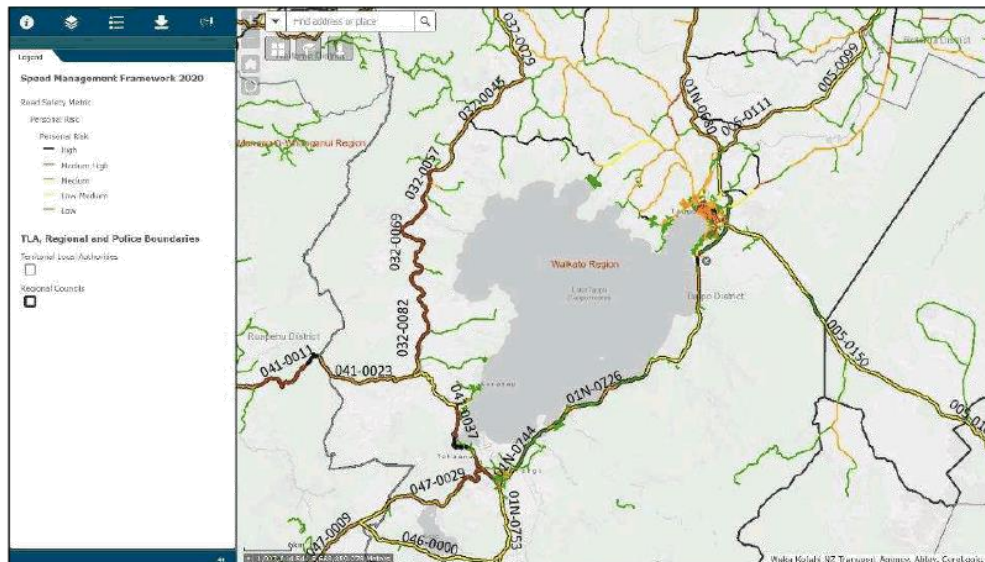


Figure C-5: Personal Risk Ratings in Taupō District

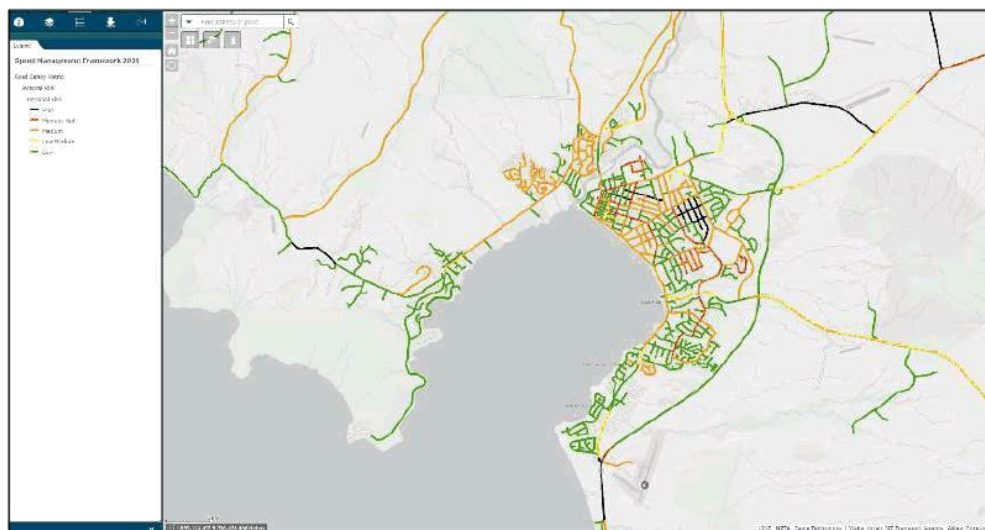


Figure C-6: Personal Risk Ratings in Taupō Central



## Taupō District – Speed Management Plan

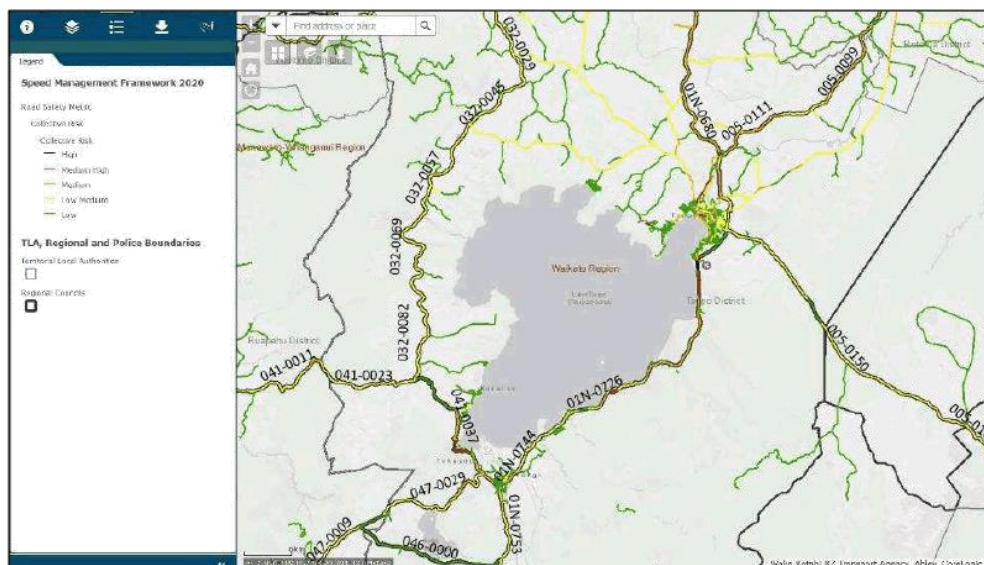


Figure C-7: Collective Risk Ratings in Taupō District

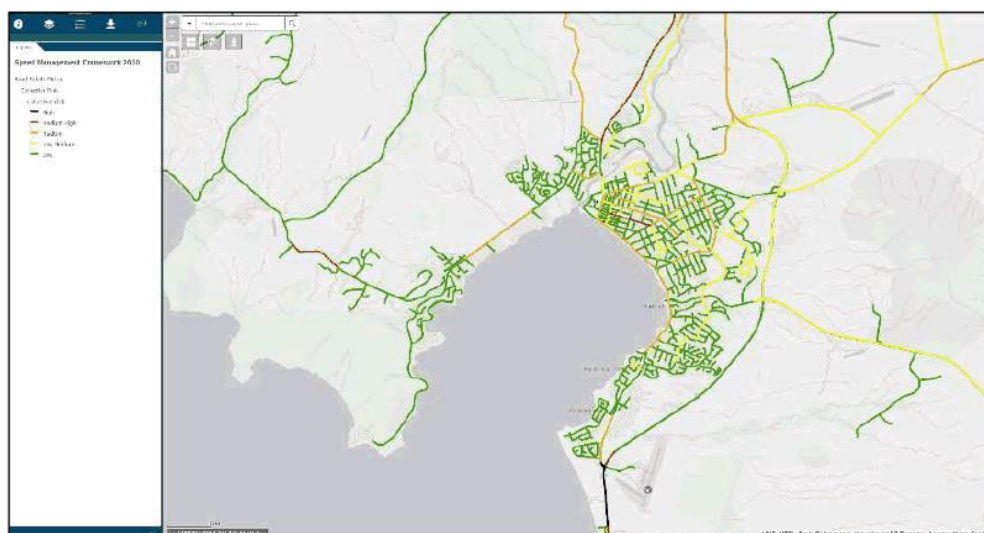


Figure C-8: Collective Risk Ratings in Taupō Central

## Taupō District – Speed Management Plan

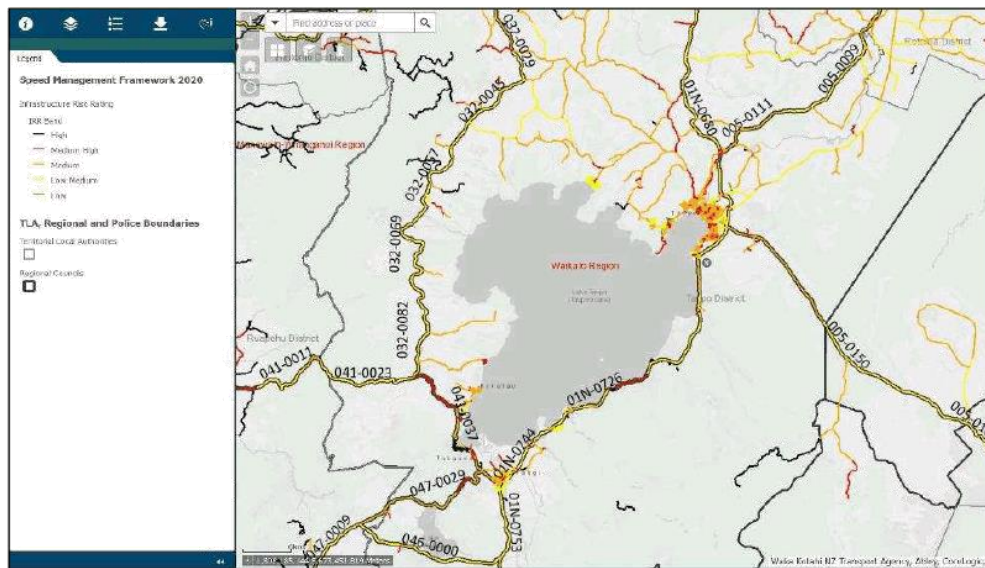


Figure C-9: IRR Ratings in Taupō District

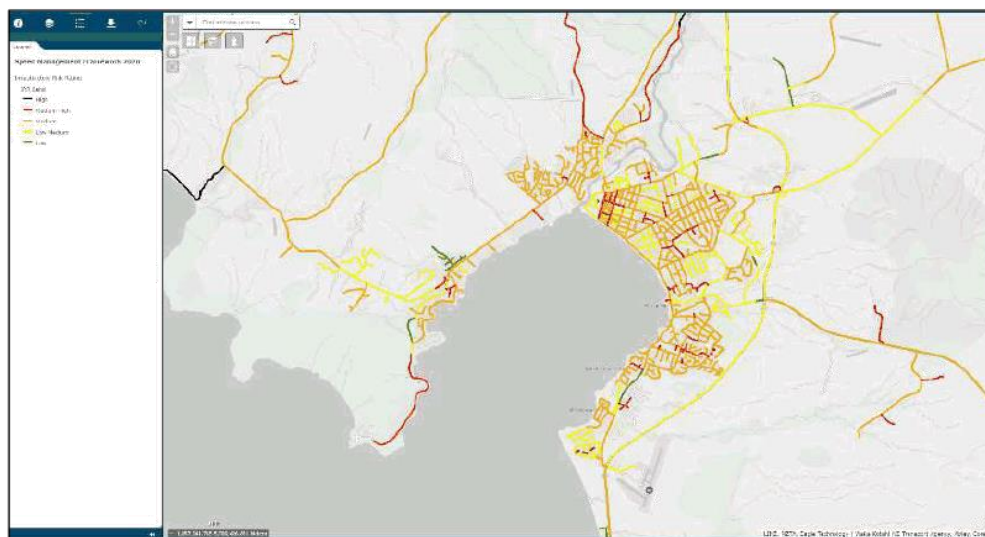


Figure C-10: IRR Ratings in Taupō Central

### C.5 High Benefit Speed Management

The “top 10% DSI Savings” on the network have also been mapped in MegaMaps. These are the roads around the national network that would generate the 10% highest savings in deaths & serious injuries (DISs) due to a reduction in existing speed limits. A small handful of roads on the Taupō network feature on this, including a large part of Poihipi Road.

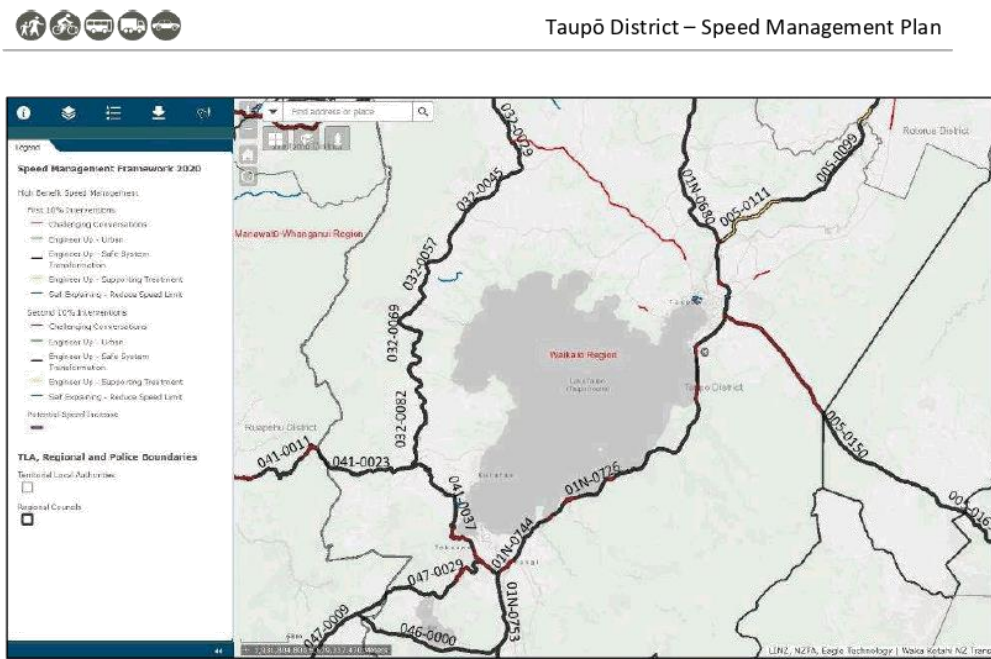


Figure C-11: Top 10% DSI Savings on the network in Taupō District

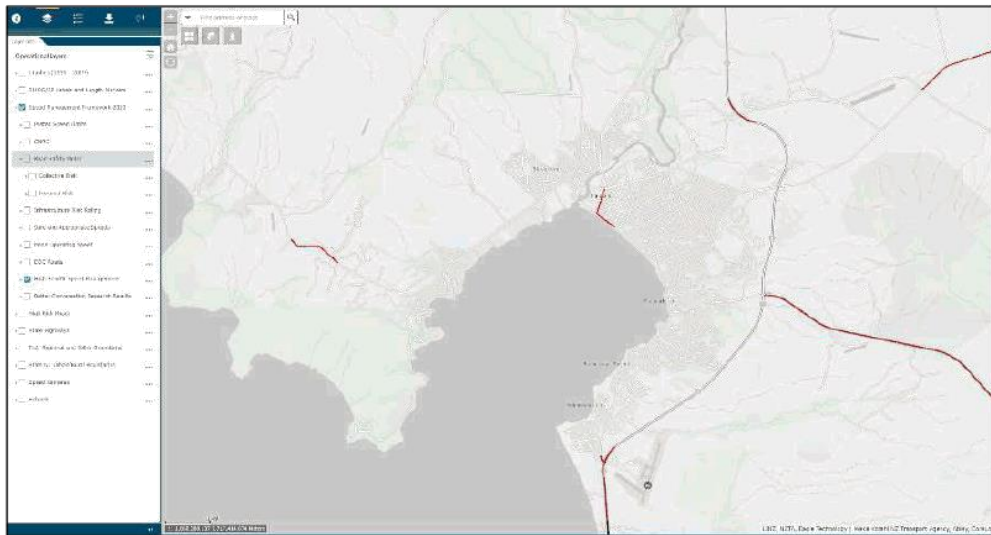


Figure C-12: Top 10% DSI Savings on the network in Taupō District

## Taupō District – Speed Management Plan



## Appendix D Schools in the Taupō District

The table includes all the schools in the Taupō District where speeds should be assessed.





Name	Location	Type
ADDI Enrichment Academy	16 Opepe Street, Taupō	Composite, Co-Educational
Hilltop School	88 Rokino Road, Taupō	Full Primary, Co-Educational
<i>*Kuratau School</i>	<i>2244 State Highway 41, Kuratau</i>	<i>Full Primary, Co-Educational</i>
Lake Taupō Christian School	42 Kiddle Drive, Taupō	Composite, Co-Educational
Mangakino Area School	55 Karamū Street, Mangakino	Composite, Co-Educational
<i>*Marotiri School</i>	<i>1569 State Highway 32, Marotiri</i>	<i>Full Primary, Co-Educational</i>
Mountview School	31 Rangatira Street, Taupō	Full Primary, Co-Educational
<i>*Rangitaiki School</i>	<i>27 Rangitaiki School Road, Rangitaiki</i>	<i>Full Primary, Co-Educational</i>
St Patrick's Catholic School (Taupō)	86 Acacia Bay Road, Taupō	Full Primary, Co-Educational
Tauhara College	Invergarry Road, Taupō	Secondary (Year 9-15), Co-Ed
Tauhara Primary School	90 Crown Road, Taupō	Contributing, Co-Educational
Taupō Intermediate	22 Kōtare Street, Taupō	Intermediate, Co-Educational
Taupō-nui-a-Tia College	122 Spa Road, Taupō	Secondary (Year 9-15), Co-Ed
Taupō School	Tamamutu Street, Taupō	Contributing, Co-Educational
Te Kura o Hirangi	29 Mawake Place, Tūrangi	Composite, Co-Educational
Te Kura o Waitahanui	107 State Highway 1, Waitahanui	Contributing, Co-Educational
TKKM o Whakarewa   Te Reo Ki Tuwharetoa	56 Waikato Street, Taupō	Composite, Co-Educational
<i>*Tirohanga School</i>	<i>851 Tirohanga Road, Tirohanga</i>	<i>Full Primary, Co-Educational</i>
Tongariro School	Waipapa Road, Tūrangi	Composite, Co-Educational
Waipahihi School	20 Parata Street, Taupō	Contributing, Co-Educational
Wairakei School	2 Kauri Drive, Wairakei Village	Contributing, Co-Educational
<i>*Whakamaru School</i>	<i>42 Kaahu Road, Whakamaru</i>	<i>Full Primary, Co-Educational</i>

*\*Indicates school in rural area (speed limit ≥ 70 km/h)*

NB: schools on State Highways have not been included in this Plan.



## Appendix E Proposed Priority 1 Speed Limit Changes

Location of priority 1 speed change		Current speed limit	Actual travel speed <sup>22</sup>	Proposed speed limit
<b>Schools</b>				
<ul style="list-style-type: none"> <li>- <b>Hilltop School</b> (Kurupae Road, Ngamotu Road, Rokino Road)</li> <li>- <b>Mountview School</b> (Leslie Street, Rangatira Street, Simkin Street, Taharepa Road)</li> <li>- <b>Tauhara College</b> (Invergarry Road)</li> <li>- <b>Taupō Intermediate and Taupō Hospital</b> (Kotare Street, Liston Avenue, Tawa Street)</li> <li>- <b>Taupō-nui-a-Tia College</b> (Motutere Avenue, Waikato Street)</li> <li>- <b>Taupō School</b> (Horomātangi Street, Tamamutu Street, Ruapehu Street)</li> <li>- <b>Te Kura o Hirangi</b>, Tūrangi (Mawake Place)</li> </ul>	<ul style="list-style-type: none"> <li>- <b>TKKM o Whakarewa I Te Reo Ki Tuwharetoa, ADDI Enrichment Academy &amp; Taupo-nui-a-Tia College</b> (Ōpepe Street, Waikato Street)</li> <li>- <b>Tongariro School</b>, Tūrangi (Hinerangi Street, Katopu Street, Te Rangikahekewaho Place, Te Rangitautahanga Road, Te Rewha Street, Waipapa Road)</li> <li>- <b>Waipahihi School</b> (Frederick Street, Parata Street)</li> </ul>		20-46	
<ul style="list-style-type: none"> <li>- <b>St Patrick's Catholic School</b> (Acacia Bay Road)</li> <li>- <b>Tauhara College and Lake Taupo Christian School</b> (Kiddle Drive)</li> </ul>	<ul style="list-style-type: none"> <li>- <b>Tauhara Primary School</b> (Taharepa Road, Crown Road)</li> <li>- <b>Taupō School</b> (Titīraupenga Street)</li> </ul>		29-52	

<sup>22</sup> Mean operating speeds as captured by MegaMaps TomTom data. In some cases, this data may be an average of a long section of road.

## Taupō District – Speed Management Plan



Location of priority 1 speed change	Current speed limit	Actual travel speed <sup>22</sup>	Proposed speed limit
- Taupō-nui-a-Tia College (Spa Road)		36	
- Mangakino School, Mangakino (Karamu Street, Wairenga Road)		34	
- Rangitaiki School, Rangitaiki (Rangitaiki School Road)		39	
- Tirohanga School, Tirohanga (Tirohanga Road)		65	
- Wairakei School, Wairakei (Kauri Drive, Rata Street)		40	
- Whakamaru School, Whakamaru (Kaahu Road)		60	













Appendix

E-27















## Taupō District – Speed Management Plan

Location of priority 1 speed change		Current speed limit	Actual travel speed <sup>22</sup>	Proposed speed limit
<b>Rural Road</b>				
- <b>Broadlands Road</b> (Miro Street – SH5)				
- <b>Broadlands Road</b> (SH5 – View Road) - Grant Road - Hitiri Road - Kaiapo Road - Katelyn Place - King Road - <b>Mapara Road</b> (Poihipi Road – Acacia Bay)	- <b>Poihipi Road</b> (SH32 – Tirohanga Road) - <b>Poihipi Road</b> (Whangamata Road – Tukairangi Road) - <b>Tukairangi Road</b> - Whakaroa Road - <b>Whangamata Road</b> (Poihipi Road – west of Kinloch)			
- <b>Poihipi Road</b> (Whangamata Road – Tirohanga Road)				
- <b>Mapara Road, Acacia Bay</b> - Acacia Heights Drive - Blue Ridge Drive - Dalmore Way - Glenloch Rise - Glen Mohr - Gillespie Place	- Highland Drive - Loch View Road - Lomond Grove - Morel Place - Ramsay Drive - Stewart Glen			
















## Taupō District – Speed Management Plan



Location of priority 1 speed change		Current speed limit	Actual travel speed <sup>22</sup>	Proposed speed limit
- Blake Road, Waitahanui		 *	22	
- Rotongaio Road, Waitahanui		 *	36	
<b>Taupō Township</b>				
- Lake Terrace (Tongariro – Ruapehu) – proposed pedestrian street			41	
- Roberts Street (west of Ruapehu Street)			20	
<ul style="list-style-type: none"> <li>- Ferry Road</li> <li>- Gallagher Street</li> <li>- Gascoigne Street</li> <li>- Heuheu Street</li> <li>- Lake Terrace (east of Ruapehu)</li> <li>- Marama Arcade</li> <li>- Pāora Hapi Street</li> <li>- Redoubt Street</li> </ul>	<ul style="list-style-type: none"> <li>- Roberts Street (Ruapehu east)</li> <li>- Ruapehu Street</li> <li>- Starlight Arcade</li> <li>- Story Place</li> <li>- Tamamutu Street</li> <li>- Taniwha Street</li> <li>- Tongariro Street</li> <li>- Tūwharetoa Street</li> </ul>		20-36	



## Taupō District – Speed Management Plan

Location of priority 1 speed change			Current speed limit	Actual travel speed <sup>22</sup>	Proposed speed limit
<b>Paetiki Shopping Centre:</b> - Taharepa Road - Rifle Range Road <b>Tauhara Shopping Centre:</b> - Taharepa Road					
- Lake Terrace (SH1 to existing 50 km/h boundary)					
- Crown Road (Napier Road – south of Ashwood Ave)					
Wharewaka	- Harakeke Drive - Kiwai Place - Kohia Place - Kopakopa Crescent - Maru Terrace - Maunganamu Drive - Makomako Crescent - Patete Place	- Poroporo Way - Puna Rise - Raupo Crescent - Roto Close - Tawhai Crescent - Tutu Place - Uky Way - Wai Terrace			
<b>Taupō Surroundings</b>					
Waitetoko	- Mua Street - Okahuroa Road - Otaiatua Street	- Rawhira Road - Waitetoko Road - Wharewera Street			

## Taupō District – Speed Management Plan



	Location of priority 1 speed change	Current speed limit	Actual travel speed <sup>22</sup>	Proposed speed limit
Wairakei	<ul style="list-style-type: none"> <li>- Hinau Crescent</li> <li>- Kamu Crescent</li> <li>- Kauri Drive (NE of school)</li> <li>- Maire Street</li> <li>- Ngaio Place</li> <li>- Nikau Street</li> <li>- Rangiora Crescent</li> <li>- Rata Street</li> <li>- Raukawa Crescent</li> <li>- Tawa Place</li> </ul>		27	
	<ul style="list-style-type: none"> <li>- Kauri Drive (SH5 – urban boundary)</li> </ul>		40	
Tūrangi	<b>Tūrangi town centre</b> <ul style="list-style-type: none"> <li>- Pihanga Road</li> <li>- Te Rangitautahanga Road</li> </ul>		20-38	
	<ul style="list-style-type: none"> <li>- Atirau Road (Southeast)</li> <li>- Gibson Street</li> <li>- Kahurau Drive</li> <li>- Ohuanga Road</li> <li>- Tukehu Street</li> <li>- Ngaumu Street</li> <li>- Torouka Street</li> <li>- Manawa Street</li> <li>- Katarina Street</li> </ul>		27-36	
	<ul style="list-style-type: none"> <li>- Atirau Road (Northwest)</li> </ul>		54-60	
	<ul style="list-style-type: none"> <li>- Hirangi Road</li> <li>- Te Awamate Road</li> </ul>		60	













Appendix

E-31





## Taupō District – Speed Management Plan

Location of priority 1 speed change		Current speed limit	Actual travel speed <sup>22</sup>	Proposed speed limit
Kinloch	<ul style="list-style-type: none"> <li>- Kinloch Esplanade</li> <li>- Marina Terrace</li> <li>- Mata Place</li> <li>- Kinloch Road</li> </ul>		28	
	<ul style="list-style-type: none"> <li>- Kānuka Grove</li> <li>- Ribbonwood Lane</li> <li>- Lancewood Way</li> <li>- Kahikatea Drive</li> <li>- Pukatea Lane</li> <li>- Karaka Place</li> <li>- Okaia Drive</li> <li>- Sherwood Way</li> </ul>	 *	n/a	
	<ul style="list-style-type: none"> <li>- Oakdale Drive<sup>1</sup></li> </ul>	 *	n/a	
Whareroa	<ul style="list-style-type: none"> <li>- Whareroa Road (East)</li> <li>- Turangitukua Terrace</li> <li>- Ngāti Parekaawa Drive</li> <li>- Ani Patena Place</li> <li>- Hinekapi Terrace</li> <li>- Te Amio Place</li> <li>- Piripi Place</li> <li>- Poriwira Drive</li> </ul>		23-42	
	<ul style="list-style-type: none"> <li>- Whareroa Road (West)</li> </ul>		60	
Whakamaru	<ul style="list-style-type: none"> <li>- Pokuru Road N</li> </ul>		43	

## Taupō District – Speed Management Plan



Note 1. For confirmation of current speed limit (currently enacted but need to ensure this is fit for purpose as per transport law)



## Appendix F Rationale where recommended speed is different from SAAS

This table identifies any proposed changes to recommended speed limits from what is calculated by MegaMaps, with reasons given for the changes.

Road Names	Difference <sup>23</sup> (km/h)	Reasoning
- Karetoto Road (North)	10	Curvilinear, narrow, hidden driveways and low FFS.
- Karetoto Road (South)		Urban development, tourism, and vulnerable users.
- Lake Terrace (town centre)		High active travel
- Mata Place		Self-explaining roads
- Wairakei Drive		Intersections (engineer up and increase speed limit after).
- Pāora Hapi Street		Town centre strategy
- Kotare Street - Liston Avenue		School and hospital
- Kinloch Esplanade - Marina Terrace		Network function (signpost entire area at 40 starting from Kinloch Road junction)
- Motutere Avenue - Waikato Street		SAAS and School
- Rangikatea Road - Rangitukua Drive		Rural residential
- Christy Road		Town centre strategy
- Heuheu Street - Tamamutu Street		
- Horomātangi Street - Taniwha Street		
- Roberts Street - Tongaririo Street (town centre)		
- Ruapehu Street - Tuwharetoa Street		
- Story Place		
- Ferry Road - Rakaunui Road		Consistent with other nearby speed change
- Kahurangi Drive - Redoubt Street		

<sup>23</sup> Difference = {Safe & Appropriate Speed} – {Recommended Speed Limit}

## Taupō District – Speed Management Plan



Road Names		Difference <sup>23</sup> (km/h)	Reasoning
- Kaimanawa Street	- Tautahanga Road		
- Kinloch Road	- Mihianga Road		Agree with existing limit (already different from SAAS)
- Lake Terrace (near SH1)	- Te Aro Road		
- Loop Road	- Tongaririo Street		
- Kopu Street	- River Road		Reflect residential place function
- Mangaroa Street	- Tariao Street		
- Matariki Street	- Waitapu Road		
- Puanga Street	- Atutahi Street		
- Acacia Bay Road		-10	Road stereotype
- Centennial Drive			Separate W&C facilities or shoulder; close to FFS
- Lisland Drive			Wide road with collector function despite classification, would need engineering to achieve SAAS
- Mapara Road			Public requests for lower speeds or traffic calming
- Marina Terrace			Network function - Marina; alignment. Alternative for consultation: signpost entire area at 40 starting from Kinloch Road junction
- Poihipi Road			Top 10% DSI Saving, alignment good but roadside hazards, challenging conversations
- Rangatira Drive			Potential 50 step down from rural straight to town 40
- Rangikatea Road			Rural residential
- Taharepa Road			Urban and rural town collector
- Atirau Road	- Rongopai Street		Consistent with other nearby speed change
- Dekker Drive	- Te Urunga Place		
- Gibson Street	- Tongariro Street (near Redoubt Street)		
- Katarina Street	- Torouka Street		
- Manawa Street			

Appendix

F-35





## Taupō District – Speed Management Plan

Road Names	Difference <sup>23</sup> (km/h)	Reasoning
<ul style="list-style-type: none"> <li>- Ngaumu Street</li> <li>- Tukehu Street</li> <li>- Wharetuku Street</li> </ul>		
<ul style="list-style-type: none"> <li>- Heuheu Street</li> <li>- Mere Road</li> <li>- Rifle Range Road</li> </ul>		Streets are to become the new arterial route
<ul style="list-style-type: none"> <li>- Mapara Road (near Acacia Bay Road)</li> <li>- Kiddle Drive</li> <li>- Wakeman Road</li> </ul>		SAAS seems too low for environment
<ul style="list-style-type: none"> <li>- Acacia Bay Road</li> </ul>	20	2018 consultation suggested 50 here. Context suggests 80 or 70 as per posted speed, would this be too many different speeds? High risk intersection present.
<ul style="list-style-type: none"> <li>- Ani Patena Place</li> </ul>		Aligns with framework
<ul style="list-style-type: none"> <li>- Kepa Road</li> </ul>		Not in MegaMaps. Narrow, turns unsealed and short length.
<ul style="list-style-type: none"> <li>- Pihanga Road</li> </ul>		Commercial area, pedestrian courtesy crossings
<ul style="list-style-type: none"> <li>- Rangitaiki School Road</li> </ul>		Full time 60, partly unsealed, school engagement to confirm.
<ul style="list-style-type: none"> <li>- Roberts Street</li> </ul>		Shared street
<ul style="list-style-type: none"> <li>- Aratiatia Road</li> </ul>		Consistent with other nearby speed change
<ul style="list-style-type: none"> <li>- Hinekapi Terrace</li> <li>- Te Amino Place</li> <li>- Ngati Parekawa Drive</li> <li>- Turangitukua Terrace</li> <li>- Piripi Place</li> <li>- Whareroa Road</li> </ul>		Reflect residential place function
<ul style="list-style-type: none"> <li>- Lake Terrace</li> <li>- Taniwha Street</li> </ul>		Town centre strategy
<ul style="list-style-type: none"> <li>- Aratiatia Road</li> </ul>		Good sightlines and clear zones. If View Rd is lowered to 60, then for consistency this should also be 60.
<ul style="list-style-type: none"> <li>- Broadlands Road</li> </ul>		Alignment and cross section are suitable for existing speed limit to be retained (for now)

## Taupō District – Speed Management Plan



Road Names		Difference <sup>23</sup> (km/h)	Reasoning
- Highland Drive		-20	Consistent with adjacent spd change, no exit, alignment tortuous and steep
- Hirangi Road			Consistent with environment
- Kinloch Road			Good alignment and separate path
- Mapara Road			Speed reduction requests from community and transition from 100km/h
- Matea Road			Surface unsealed, alignment better than the other segment, but needs differentiation from the winding segment
- Oruanui Road			SAAS too low, shoulders and alignment are better than 60
- River Road			Alignment, absence of driveways
- Tirohanga Road			Very straight alignment. Could then step down before the curves to the west, school.
- View Road			Most of this road has good horizontal alignment (consult)
- Waipapa Road			Disagree with MegaMaps, aim for consistency with adjacent links
- Wakeman Road			2018 consultation suggested 50 here. Context suggests 80 or 70 as per posted speed, would this be too many different speeds? High risk intersection present.
- Whangamata Road			Roadside hazards, SAAS too low given width, centreline, and mostly good visibility around curves; minor improvements to improve sightlines further.
- Acacia Heights Drive	- Lake Terrace - Awamate Road		Consistent with other nearby speed change
- Blueridge Drive	- Loch Views Road		Good sightlines, clear zones, lifestyle blocks. Requires engineering to achieve SAAS.
- Dalmore Way	- Lomond Grove		
- Gillespie Place	- Morel Place		
- Glen Mohr	- Ramsay Drive		
- Glenlochy Rise	- Stewart Glen		

Appendix

F-37





## Taupō District – Speed Management Plan

Road Names	Difference <sup>23</sup> (km/h)	Reasoning
- Pokuru Road                      - Spencer Road	30	Second 10% DSi saving. Very minor road likely to be used by locals who know the conditions. Could engineering up to 80 or consult about reducing speed limit to SAAS 60.
- Palmer Mill Road                      - Waiotaka Road		Rural local road
- Acacia Bay Road		Entry to township
- Lake Terrace		Pedestrian street
- Riverpark Drive		Rural residential
- Robert Street		Shared street
- Wairakei Drive		Urban fringe, high free flow lack of shoulders, but also lack of driveways. Engineer up and increase speed limit.
- Whakamaru Road		More logical step change if rural adjacent link is changed to 80, consistent with township, fewer signs.
- Borderland Road                      - Huka Falls Road		Urban growth, consistency with adjacent urban roads (agree with posted)
- Lake Road	-30	Straight alignment, stay with previous consulted limit
- Lake Terrace		To further reduce, would need engineering given the free flow speed
- Poihipi Road		Alignment good but roadside hazards

## Taupō District – Speed Management Plan



## Appendix G Infrastructure and Costs

Note that these costs are for Priority 1 speed management proposals; costs for priority 2 and 3 proposals have been developed independently.

Taupō Speed Mngmt Costs				Total \$	\$373,300	\$34,650
Road / Area	Locality	Length (km)	Speed Changes	Treatments	TOTAL CAPITAL COSTS	TOTAL OPERATING COSTS / YR
Hilltop School	Taupō		50 > 30	Signs & Markings	\$3,200	\$800
Lake Taupō Christian School	Taupō		50 > 30VMS	Signs & Markings, VMS	\$18,800	\$2,000
Mangakino Area School	Mangakino		50 > 30	Signs & Markings	\$2,400	\$600
Mountview School	Taupō		50 > 30	Signs & Markings, Ped'n Xing	\$12,400	\$600
*Rangitaiki School	Rangitaiki		100 > 30	Signs & Markings	\$800	\$200
St Patrick's Catholic School	Taupō		50 > 30VMS	Signs & Markings, VMS	\$19,700	\$2,150
Tauhara College	Taupō		50 > 30	Signs & Markings	\$1,600	\$400
Tauhara Primary School	Taupō		50 > 30VMS	Signs & Markings, VMS	\$28,300	\$2,950
Taupō Intermediate	Taupō		50 > 30	Signs & Markings	\$1,600	\$400
Taupō-nui-a-Tia College	Taupō		50 > 30, 40VMS > 30VMS	Signs & Markings	\$1,700	\$350
Taupō School	Taupō		50 > 30VMS	Signs & Markings, VMS	\$18,800	\$2,000
Te Kura o Hirangi	Tūrangi		50 > 30	Signs & Markings, Traffic Calming	\$25,800	\$700
TKKM o Whakarewa / ADDI Academy	Taupō		50 > 30	Signs & Markings	\$2,400	\$600
*Tirohanga School	Tirohanga	0.5	100 > 80, 30VMS	Signs & Markings, VMS, Traffic Calming	\$29,600	\$2,700
Tongariro School	Tūrangi		50 > 30	Signs & Markings	\$3,200	\$800
Waipahihi School	Taupō		50 > 30	Signs & Markings	\$2,400	\$600
Wairakei School	Wairakei		50 > 30	Signs & Markings	\$2,400	\$600
*Whakamaru School + Pokuru Rd	Whakamaru		70 > 60, 30VMS	Signs & Markings, VMS	\$21,200	\$2,600
Broadlands Rd (Miro St – SH5)	Taupō	0.5	100 > 50	Signs & Markings, Threshold	\$2,800	\$300
Broadlands Rd (SH5 – View Rd)	Rural	4.7	100 > 80	Signs & Markings	\$3,600	\$600
Mapara Rd (Poihipi Rd – Acacia Bay)	Rural	11.5	100 > 80	Signs & Markings	\$4,600	\$400
Poihipi Rd (SH32 – Tirohanga Rd)	Rural	9.4	100 > 80	Signs & Markings	\$7,200	\$1,200
Poihipi Rd (Whangamata - Tukairangi)	Rural	5.6	100 > 80	Signs & Markings	\$3,600	\$600
Tukairangi Rd	Rural	9.7	100 > 80	Signs & Markings	\$4,000	\$400
Whangamata Rd (Poihipi Rd – Kinloch)	Rural	8.8	100 > 80	Signs & Markings	\$5,600	\$800

Appendix

G-39





## Taupō District – Speed Management Plan

Taupō Speed Mngmt Costs				Total \$	\$373,300	\$34,650
Road / Area	Locality	Length (km)	Speed Changes	Treatments	TOTAL CAPITAL COSTS	TOTAL OPERATING COSTS / YR
Poihipi Rd (Whangamata – Tirohanga)	Rural	13.2	100 > 90	Signs & Markings	\$6,000	\$600
Mapara Rd, Acacia Bay + others	Acacia Bay	2.8	70 > 60	Signs & Markings	\$2,200	\$400
Blake Rd, Waitahanui	Taupō		50 > 40	Signs & Markings	\$800	\$200
Rotongaio Rd, Waitahanui	Taupō	0.5	100 > 60	Signs & Markings	\$800	\$200
Lake Terrace (Tongariro – Ruapehu)	Taupō		50 > ped	Separated		
Roberts St (west of Ruapehu St)	Taupō		50 > 10	Signs & Markings		
Taupo Town Centre	Taupō		50 > 30	Signs & Markings		
Paetiki Shopping Centre	Taupō		50 > 30	Signs & Markings, Threshold, Ped’n Xing	\$15,600	\$600
Tauhara Shopping Centre	Taupō		50 > 30	Signs & Markings, Threshold, Ped’n Xing	\$12,800	\$300
Lake Terrace (SH1 to 50km/h)	Taupō	2.3	80 > 60	Signs & Markings		
Crown Rd (Napier Rd - Ashwood Ave)	Taupō	0.8	80 > 60	Signs & Markings		
Ngāroto Estate	Wharewaka		50 > 40	Signs & Markings	\$800	\$200
Waitetoko	Waitetoko		50 > 40	Signs & Markings, Threshold	\$2,800	\$300
Wairakei	Wairakei		50 > 40, 100 > 60	Signs & Markings, Traffic Calming	\$79,000	\$1,900
Tūrangi town centre	Tūrangi		50 > 30	Signs & Markings, Threshold	\$8,400	\$900
Tūrangi industrial area	Tūrangi		70 > 60, 100 > 60	Signs & Markings	\$3,200	\$800
Hirangi Rd + others	Tūrangi		100 > 80	Signs & Markings	\$1,600	\$400
Kinloch Esplanade	Kinloch		50 > 30	Signs & Markings	\$3,200	\$800
Kinloch new subdivisions	Kinloch		50 > 40	Signs & Markings	\$5,600	\$1,400
Whareroa village	Whareroa		50 > 40, 100 > 60	Signs & Markings, Threshold	\$2,800	\$300