

ATTACHMENTS

UNDER SEPARATE COVER 1

**Mangakino/Pouakani Representative
Group Meeting**

12 April 2022

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MESSAGE FROM THE MAYOR AND CHIEF EXECUTIVE

Over two years on from the first outbreak of Covid-19, we are still very much feeling the effects of this worldwide pandemic. As a result of this ever-evolving landscape we find ourselves in, we must continue to adapt and find ways to move forward as a district.

Last year, we set out our long-term vision and plans for the Taupō District. As part of this, we needed to look at how we could support our economic recovery in a post-lockdown environment. A key piece of this puzzle has been delivering a significant programme of investment in our core infrastructure – to create local jobs and support our economy. Much of this has been government-funded – an opportunity that we have been fortunate to take up on projects district-wide.

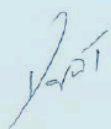
Now, six months on from setting that plan, we are re-looking at how we are delivering for our district as part of our Annual Plan. We are reviewing what is achievable in the current climate, looking at how we can be nimble in our approach, and thinking about both the immediate concerns of our community alongside the district's medium- and longer-term needs.

What we aim to achieve is balancing affordability for ratepayers with maintaining the levels of service and investment that our district needs to thrive. At the moment, it is well-known that inflation is increasing at rates not seen for over three decades. That has significant ramifications on affordability and in turn deliverability.

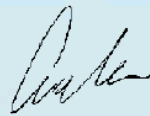
In this Consultation Document, we have set out the major projects we had planned for year two of our Long-term Plan, and how the current climate has affected these – primarily in terms of costs – and what we are proposing for these.

Alongside this, we are also asking for feedback on a couple of policies – our fees and charges and our significance and engagement policy which we have recently updated.

Please take the time to read through this Consultation Document and the issues we have highlighted in it. We want to hear from you – our community – on whether you think we have this right, whether we have prioritised appropriately, and what is important to you.



David Trewavas
Mayor



Gareth Green
Chief Executive

TAUPŌ DISTRICT COUNCIL

TE TIRITI O WAITANGI

Kei te hāngai tika atu Te Kaunihera a Rohe o Taupō ki ngā ture o Te Tiriti o Waitangi me te mau mōhio ko te honongatahi te pūtake o Te Tiriti. E ai ki tēnei kia mahi tahi tātou ki runga i te whakapono me te ngākaunui ki te whakamana i tēnei hononga. Kei te mōhio mātou he rerekē ngā takohanga kei waenganui i te Karauna hei kawenga ma te Kaunihera a Rohe o Taupō.

Ka hāngai tika atu Te Kaunihera a Rohe o Taupō ki ngā mātāpono mo te honotahi (ki te mahi tahi i tenei whakakotahitanga) kia uru tahi (te Māori ki ngā mahi a te Kaunihera), te tiaki (te whakatakoto i ngā tikanga me te tiaki i ngā tāonga o te iwi Māori) ki roto i a mātou whakaritenga mahi, ngā manahau me te whakatakoto kaupapa.

Ka mahitahi Te Kaunihera a Rohe o Taupō ki te iwi, me ngā hapū ki te whakamana i te ture mo ngā whakataunga o Te Tiriti me ētehi atu kaupapa ka puta mai i ēnei mahi.

Kei te mau uara Te Kaunihera a Rohe o Taupō mo to mātou hononga ki te iwi Māori kei roto i to tātou rohe. He roa ake te wā e piritahi pēnei, ka mau pono mātou ki te whakarei me te atawhaitia ki roto i ā mātou mahi me ngā wā ka hui tahi mātou ki ngā hapū, me te iwi Māori.

Ki te mau mārō o tātou honotahi, ka taea te Kaunihera ki te tukutuku ngā hua ki runga ake o ērā ka taea te tuku me ko te Kaunihera anahe.

E rua ngā rēanga e tika ana ki o mātou hononga ki te iwi: ko te rangatira ki te rangatira, me te āpiha ki te āpiha. Ka mau hoki tēnei tikanga ki roto i ngā mahi katoa, kia whakawarea te iwi me ngā hapū i mua i te tīmatatanga o te mahi mo te whakatakoto kaupapa, ehara kei waenganui, kei te mutunga rānei o aua mahi.

TE TIRITI O WAITANGI

Te Reo Māori translation provided by Te Kanawa Pitiroi.

Taupō District Council is committed to meeting its statutory Tiriti O Waitangi obligations and acknowledges partnership as the basis of Te Tiriti. This requires both parties to treat and work with each other in good faith and show good will to reflect the partnership relationship. We acknowledge these responsibilities are distinct from the Crown's Treaty obligations and lie within a Taupō District Council context.

Taupō District Council will give effect to the principles of partnership (the duty to act in good faith in the nature of a partnership), participation (of Māori in council processes), protection (the duty to actively protect the rights and interests of Māori) in our services, activities and planning work.

Taupō District Council will work in partnership with iwi and hapū to give effect to Treaty settlement legislation and any provisions that result from these.

Taupō District Council values our relationships with Māori in our district. We have long standing relationships that we commit to enhance and foster in our day-to-day business; and when we engage hapū, iwi, Māori. Strong strategic partnerships can help the council to deliver outcomes that exceed what it can deliver alone.

Council relationships with our iwi partners operates at two levels: rangatira ki te rangatira (chief-to-chief) and officer-to-officer. This also includes our engagement processes - we will engage iwi partners right from the early stages of projects and planning.

YOUR COUNCIL



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TE KAUNIHERA Ā ROHE O TAUPŌ

“
**Whakapūpūtia mai ō
mānuka, kia kore ai e whati.**

Cluster the branches of the mānuka, so
they will not break. (Together with a shared
vision, we know which direction to go.)

”

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WHY WE WANT YOU TO HAVE YOUR SAY

Council's Annual Plan outlines the services, key projects, and initiatives we intend delivering for our community in the coming financial year. This document outlines the key issues we want your feedback on. It's just as important to let us know the things you support as well as the things you don't as what you tell us will guide our future decision making.

You can have your say in the following ways:

- Visit taupo.govt.nz/haveyoursay
- Email annualplan@taupo.govt.nz
- Call into your nearest council office
- Come and see us at a consultation drop-in session - dates and venues for these sessions will be made available on Council's website once they are confirmed.

All submissions have to be received by 4.30pm on 14 April 2022.

WHAT HAPPENS WITH MY FEEDBACK?

When you make a submission, you will be given the option on whether you want to present your view to the Council in person. If you do, we will book a time for you to attend a public meeting which will be held on 23 and 24 May 2022. You will be given up to five minutes to present your submission and answer any questions. Hearings in Turangi and Mangakino will be arranged if there are enough people wanting to present. Alternatively, you could choose to present your view to the Council through a video call - please let us know if you would prefer to present this way, and we will be in touch to make the necessary arrangements.

All submissions will be considered by Council regardless of whether you want to be heard or not. Final decisions will be made at the end of the public meetings and the Annual Plan 2022-23 will be adopted at the end of June 2022.

Kindly note that all submissions will be made available to the public via the Council website, including your name, but not contact details. This is in accordance with our Privacy Statement, which is available through www.taupo.govt.nz/privacy-policy.

Find out more ways to have your say by heading to taupo.govt.nz.

TE KAUNIHERA Ā ROHE O TAUPŌ

WHAT WE WANT TO HEAR FROM YOU

Through this consultation document, we would like update you about our plans for the coming financial year. In particular, we want to talk to you about the following:

CHANGES TO OUR CAPITAL EXPENDITURE PROGRAMME

ALIGNING OUR LOCAL WATER SCHEMES

UPDATES TO SOME OF COUNCIL'S FEES AND CHARGES

SIGNIFICANCE AND ENGAGEMENT POLICY

TOWNCENTRE TAUPŌ MANAGEMENT RATE

ANNUAL PLAN CONSULTATION 2022-2023 | 9

WHAT COUNCIL DOES

We deliver a diverse range of services for and on behalf of our community that affect how we play, live, work and engage with our environment. These are the things that help make Taupō District a great place to live and enhance our reputation as a destination of choice for tourists.

The services we provide are not just those that are mandated by the Local Government Act 2002, but equally importantly, reflect the aspirations of our community and the things you have told us that you would like to see or have across our district:

- Community Services
- Water
- Transport
- Community Facilities
- Wastewater
- Solid waste
- Stormwater
- Democracy and Planning
- Investments
- Economic Development

HOW COUNCIL PLANS

The law requires councils in partnership with their communities to prepare Long-term Plans every three years. These Long-term Plans set out everything we intend to deliver for the Taupō District community over the next ten years and how we will pay for them.

The Long-term Plan sets out the community outcomes we hope to achieve, the projects and activities we will undertake to achieve these community outcomes and the level of service the community can expect.

The plan also includes how much we expect things to cost, how we'll pay for them and what it all means for the rates you pay and the money we borrow to make up the difference.

Long-term Plans are designed to provide a long-term focus by looking a decade ahead. But they are also reviewed and consulted on every three years; and an annual plan is prepared for each of the years in between.

Council calendars run from 1 July of the first year to 30 June of the following year.

You may recall that we came to you about this time last year with our draft Long-term Plan and talked about these same things with you. The feedback from the community helped us to finalise that draft document and our final Long-term Plan came into effect at the end of June 2021.

You can view our Long-term Plan at: taupo.govt.nz/LTP

We are now halfway through the first year of our Long-term Plan and are in the process of preparing an annual plan for the second year of the Long-term Plan.







ONGOING EFFECTS OF COVID-19 AND A FAST-CHANGING ECONOMIC ENVIRONMENT

There is little doubt that the Covid-19 pandemic has had devastating health, economic and social impacts on businesses and communities across Aotearoa. Lockdowns and movement restrictions that have been put in place to limit the spread of Covid-19 have sharply disrupted the way we live and work, changing the very nature of our social fabric.

Work had only just begun in earnest on our Long-term Plan when the pandemic began, and very quickly, the plan became not just about shaping our community's aspirations for the next decade, but also about taking immediate actions to support the local economy. Council was not alone in taking this approach, other councils across New Zealand and the Central Government adopted a similar tactic.

Across the nation, there was a steadfast commitment to work together with our communities, businesses, and all levels of government to respond to this crisis and create a better future. The strategy to limit the damage caused by the pandemic was two-pronged. The first, to mount a resilient public health response and the second, by introducing a raft of economic measures to cushion the effects on livelihoods and well-being, as well as support New Zealand's economic recovery.

As an organisation responsible for undertaking many infrastructure related projects, Council has the ability to help stimulate the economy through undertaking capital projects and renewals. Our Long-term Plan was developed with these considerations in mind and scenarios on the likely impacts of Covid-19 on Taupō's local economy were factored into our economic assumptions. As a result, adjustments were made to bring forward the timeframes for undertaking capital projects, upgrades and renewals that had been identified as critical to maintaining access to fundamental services and facilities needed for everyday living.

A key consideration has always been the need to balance our community's ability to pay, while progressing key capital projects that are instrumental in maintaining and improving Council's services and delivering these within an expected time-period. We also worked to ensure that Council's Covid-19 response, while ambitious, did not deviate significantly from the course set out in previous financial and infrastructure strategies.

We also considered possible risk factors. At that time, the risks we identified were the possibility of supply chain disruptions overseas and limiting the ability of the local supplier market to deliver required materials in the needed volumes. There was also the risk of future lockdowns delaying projects.

Since the Long-term Plan was prepared, it has become increasingly clear that the nature of the challenges posed by Covid-19 to the economy differs from what was anticipated. In the wake of the global Covid-19 response, the construction sector is facing an unprecedented level of pressure in supply and demand for building materials both domestically and internationally, resulting in a sharp surge in costs and delays and disruption in construction and infrastructure projects.

In a matter of months, we have seen supply chain-related risks evolve from a minor peripheral issue to a key risk consideration for parties entering a construction contract. While supply chain risks are not unknown in the construction industry, the impacts of Covid-19, as well as the surge in demand for materials overseas have worsened some of the key factors that are leading to the current supply constraints. These constraints include shortages in raw materials and competition in manufacturing slots, low shipping container availability, congestion in ports and delayed port clearance and a restriction in the ability to move materials through domestic travel routes.

At a local level, Council is also having to grapple with human resource constraints, both within our own staffing pool and our contractors having staffing shortages as well. Again, we are not alone in facing these challenges, and across the country, a number of councils are citing similar constraints in finding staff with the relevant technical and/or project management skills and retaining them in their workforce.

The result of these constraints is that projects are now costing far more to complete than they would have as recently as a year ago. Even where it is possible to recruit appropriately qualified technical staff, the challenges posed by supply chain problems, and periodic Covid-19 lockdowns are working in tandem to draw out the project delivery timelines far beyond what was planned and cost significantly more than anticipated.

HOW WE WILL DECIDE ON PROJECTS

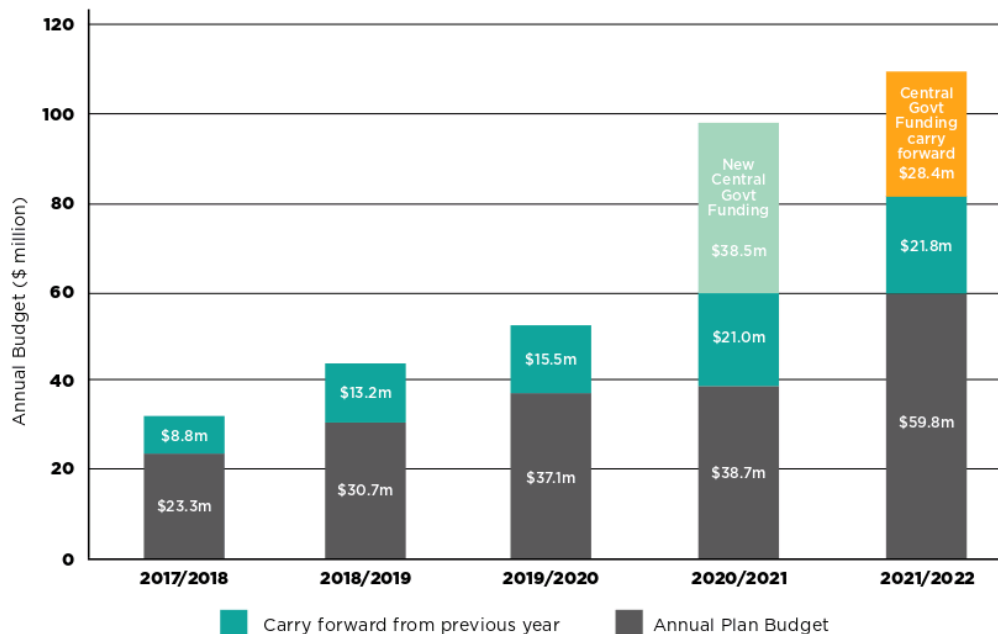
As a result of the challenges discussed in the previous section, it is increasingly clear that our operating environment has changed and the project planning and implementing approach that was decided on as part of the Long-term Plan process will no longer serve us well.

The identification and funding approval process that all projects go through before being confirmed as viable is rigorous and underpinned by considerations of value to the community and statutory regulations. We are therefore confident that the projects identified in our Long-term Plan remain vital to the ongoing wellbeing of our community. Council remains committed to delivering these projects, however there will need to be changes to the delivery timeline.

We know that our project delivery pipeline is ambitious, but it would be deliverable within a 'normal' operating environment. These are however not 'normal' times and there is every possibility that our operating environment will change even more in the coming year – although the nature and severity of those changes are hard to predict. Therefore, there is every possibility that Council may need to delay the delivery of some projects, bring others forward or adjust the scope and cost of some projects to get best value for money.

In the following sections of this consultation document, we will talk about what changes – either in cost, scope, or delivery timeline that we will be making to some of our

Council budget and carry forwards build up over the past five years



All other projects not commenced by the close of the 2021-22 financial year will only be considered for delivery in 2022-23 in accordance with the decision-making criteria set above. No work will commence on these projects until a decision has been made to continue the project. If a project no longer exists in the form originally intended or approved, it will be set aside and not carried forward.

“Carry forwards refer to an allocation of funds that hasn’t been fully used by the end of the financial year but is expected to be used in the next financial year.”

WHAT DOES THIS MEAN FOR MY RATES?

The 2022-23 average rates increase forecast in Council's 2021 - 2031 Long-term Plan was 7.35%, however that is likely to rise by around 1%. The increase is largely being driven by rising costs in the solid waste management part of our operations.

The most significant cost impact in our solid waste operation has been the cost of carbon units which we purchase to offset our greenhouse gas emissions. We look to purchase those units at the lowest price possible and budget for future increases. Unfortunately, the market price of those units has been increasingly volatile and has risen dramatically, more than doubling in the last 12 months.

We have also seen rising general inflation across the economy applying significant upward pressure to many of our costs, particularly materials and labour costs. This mirrors the impacts we have seen across our capital investment programme. Despite this volatility, we are working hard to keep a limit on operating

expenditure in the 2022-23 year. Our primary approach to dealing with inflation is to seek operating efficiencies and improvements to offset its effects.

While there is some uncertainty around which capital projects the market conditions will enable us to deliver in 2022/23, we still expect the total capital invested to be broadly aligned to the Long-term Plan. This means that the cash required to apply to interest and depreciation will remain at a similar level.

It's important to remember that rates for individual properties are not restricted by the rates increases limit of LGCI +2.5% average rates increase limit signalled in our Financial Strategy. They will vary depending on a range of factors including property revaluations and whether the property is used for business, residential or farming purposes.

“The most significant cost impact in our solid waste operation has been the cost of carbon units which we purchase to offset our greenhouse gas emissions.”



WATER

CHANGES TO COUNCIL'S CAPITAL PROJECTS PROGRAMME DELIVERY

WHAT WE DO AND WHY WE DO IT

Water is essential for life, health, recreation, and the environment. Across our district, water is also essential for economic development - there are many businesses who rely on us to provide a safe, reliable water supply. Without it, there may be significant disruptions to our tourist operations and economic development.

We supply treated drinking water to 18 schemes throughout the district. This involves taking water from lakes, rivers and bores and treating it, storing it, and then distributing to our customers. The water supply activity involves maintaining water treatment plants, water storage reservoirs, pump stations, hydrants, and water pipes.

VARIATION BETWEEN THIS ANNUAL PLAN AND THE LONG-TERM PLAN

The Central Government-led Three Waters Reforms are underway, with the expectation that Council's responsibility for these assets will cease in July 2024 and be transferred to a newly created entity. Pending the conclusion of this reform process, Council continues to have a responsibility

to ensure that we operate and invest in these assets in a prudent manner in order to protect people's health and the environment.

We are required to ensure that the water that we supply complies with the Drinking Water Standards New Zealand (DWSNZ) to make sure our water supply is safe. We have a number of projects underway to help ensure that all the drinking water we provide meets the performance requirements of all parts of the DWSNZ all of the time.

The costs for completing these projects are now known to be higher than we had anticipated in the Long-term Plan. This is due to several factors including the ongoing economic environment that we have talked about in previous sections, but also the nature of Taupō's pumice soils and the added reinforcement the infrastructure will require. The budgets were set based on preliminary soil investigations, however detailed geotechnical investigations at each site has since revealed considerably worse ground conditions.

Funding to complete these projects will be met through external borrowings and responsibility for the debts will be transferred to the new three waters entity upon its creation.

ALIGNING ALL OUR LOCAL WATER SCHEMES

As part of the Long-term Plan 2021/2031, council, in consultation with the community, decided to ensure a consistent approach for water rates across our communities. Currently, Five Mile Bay ratepayers pay an additional water rate of \$112.75 (incl. GST) each year. This was funding half of the cost of a new water main that was put in place in early 2021 to connect Five Mile Bay to safe council-treated drinking water.

Following further consultation with the community, council is now pursuing a shared district-wide water funding approach. This new way shares the costs of providing our communities with reliable and safe water - with all across the district paying the same fixed water rate. This means greater flexibility to fund the necessary investment across various water systems at different times. It also makes it more affordable for smaller

communities and makes for much greater stability of water rates - offering more certainty for ratepayers.

Through this new approach, we don't believe that the targeted Five Mile Bay water rate should continue. We want to remove this as part of the 2022 Annual Plan. Instead, the costs of the 2021 new main water pipe to Five Mile Bay will be shared across the whole district - just like all other required new investment. To make this change, the annual impact on the district-wide water rate will be an added 50 cents for each ratepayer per year.

This reflects the shared funding approach to providing our communities with high-quality, safe drinking water, which the community endorsed (68.4% of submissions in favour) when consulted on in the Long-term Plan 2021/2031.

KEY PROJECTS

These are the key projects that we have planned for the coming year are:

| PROJECTS | YEAR(S) | TOTAL COST | COMMENTS |
|---------------------------------------------------------------|---------|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ONGOING PROJECTS | | | |
| Tauhara Ridge reservoir and airport connection | 2022-24 | \$4.02 million | No anticipated changes. Will proceed as planned |
| Bonshaw Park Drinking Water Standards upgrade | 2021-23 | \$2.37 million | No anticipated changes. On track as planned |
| Centennial water scheme Drinking Water Standards NZ upgrade | 2022-25 | \$7.2 million | Cost increase by \$3.7 million due to reasons touched on above |
| Hatepe water scheme Drinking Water Standards NZ upgrade | 2022-24 | \$5.5 million | Cost increase by \$2.7 million due to reasons touched on above |
| Kinloch Drinking Water Standards NZ upgrade | 2021-23 | \$9.9 million | Cost increase by \$4.6 million due to reasons touched on above |
| Motuoapa Drinking Water Standards NZ upgrade | 2022-24 | \$6.6 million | Cost increase by \$3.9 million due to reasons touched on above |
| Omori Drinking Water Standards NZ upgrade | 2021-23 | \$6.0 million | Cost increase by \$3.9 million due to reasons touched on above |
| Implementation of the Water Loss Strategy | 2021-24 | \$1.5 million | On track as planned |
| Whakamoenga Point Drinking Water Standards NZ upgrade | 2021-24 | \$1.5 million | On track as planned |
| NEW PROJECTS | | | |
| UV Plant Upgrades – Atiamuri, Whareroa, Waihaha and Tirohanga | 2022-24 | \$4.0 million | Work on these is already underway. It was planned to be fully funded by Central Government, but a funding shortfall means Council funding is now required to complete the upgrades. |
| UV Plant Upgrade - Motutere | 2022-23 | \$1 million | Ongoing upgrade. Increased cost by \$500k |
| Water Network Renewals | 2022-23 | \$5.7 million | Budget increased by \$1 million to ensure level of service can continue to be maintained. |
| PROPOSED PROJECT | | | |
| Motuoapa Extension of Water Network | 2022-23 | \$0.9 million | Project to extend water network for residents of Motuoapa. The details of which areas will be serviced will be finalised through consultation with ratepayers and residents of Motuoapa in the coming months |
| CANCELLED OR DEFERRED PROJECTS | | | |
| Construction of a new water reservoir in Kinloch | 2021-24 | \$4.8 million | Deferred: not able to be delivered within the timeline as the land acquisition is taking longer than expected and there are staffing challenges |

TRANSPORT

CHANGES TO COUNCIL'S CAPITAL PROJECTS PROGRAMME DELIVERY

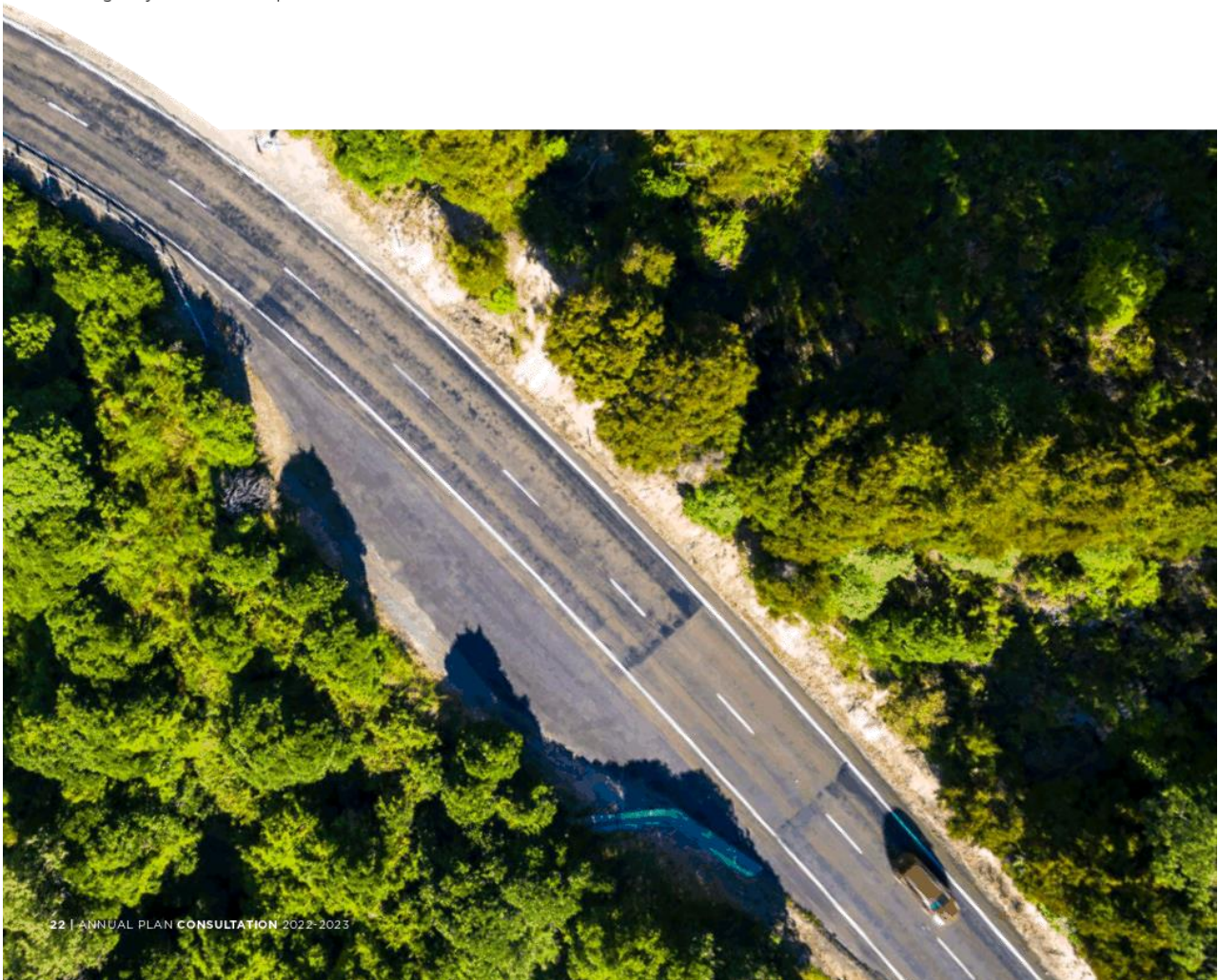
WHAT WE DO AND WHY WE DO IT

Our transport network provides for the efficient movement of people and goods which is essential for the economic and social wellbeing of the community. We provide a comprehensive local transport network which includes local roads, footpaths, streetlights, cycle paths, bridges, bus shelters, traffic signals, carparking and signage. We also work on improving road safety and ensuring people enjoy easy access to different modes of transport, such as walking and cycling.

Waka Kotahi bears responsibility for managing the state highways within the Taupō district.

VARIATION BETWEEN THIS ANNUAL PLAN AND THE LONG-TERM PLAN

A lot of the work we do is done in partnership with Waikato Regional Council and Waka Kotahi New Zealand Transport Agency (NZTA), especially those that focus on road safety, or economic development. In the coming year, there are a number of low-cost, low risk, road widening projects that Waka Kotahi hasn't funded as planned. These projects are in the Long-term Plan 2021-31 but the funding shortfall for year two of the Long-term Plan is approximately \$1.3 million; and in year three it is approximately \$1.4 million. These will need to be met by Council if they are to proceed as planned.



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KEY PROJECTS

These are the key projects that we have planned for the coming year are:

| PROJECTS | YEAR(S) | TOTAL COST | COMMENTS |
|-----------------------------------------------|--------------|-----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ONGOING PROJECTS | | | |
| Whangamata Road improvements | 2021-24 | \$2.7 million | These are the shortfalls touched on above. |
| Poihipi Road seal widening | 2021-27 | \$2.7 million | |
| Tirohanga Road improvements | 2022-26 | \$1.3 million | |
| Broadlands Road widening | 2021-23 | \$0.8 million | |
| Minor improvements | 2021-31 | \$2.8 million | On track as planned |
| Seal extension | 2021-31 | \$6.3 million | |
| Pedestrian facilities | 2021-31 | \$2.3 million | |
| NEW PROJECTS | New projects | New projects | New projects |
| Town Centre Transformation | 2022-23 | \$2.0 million (total is \$4.4 million across transport and community facility projects) | These projects are already underway as part of government funded shovel ready projects. The additional cost is so that Council can take the opportunity to complete them to the desired standards |
| Turangi Kerb and Channelling | 2022-24 | \$4.4 million | |
| Tauhara Ridge Drive/Lake Terrace intersection | 2022-23 | \$1.0 million | Roundabout proposed to help with traffic management |
| Waikato River bridge crossing investigations | 2022-23 | \$300,000 | Investigative work on the possibility of a new bridge downstream from the Control Gates Bridge. This work was originally scheduled for 2025-26, but higher than anticipated growth rates are already leading to heavier traffic flows, which will only intensify if left unaddressed |
| Wairenga Rd footpath | 2022-23 | \$150,000 | Installation of a new footpath along Wairenga Road to provide safer access to the RSA in Mangakino. |
| Huka Falls footpath (stage 3) | 2022-24 | \$1.19 million | To continue Huka Falls Road concrete path from Huka Falls carpark to the Hub carpark. This project is fully funded by Waka Kotahi. |

COMMUNITY FACILITIES

CHANGES TO COUNCIL'S CAPITAL PROJECTS PROGRAMME DELIVERY

WHAT WE DO AND WHY WE DO IT

We offer a range of leisure and recreation opportunities for the benefit of both residents and visitors across the district. These are in the form of parks, reserves, playgrounds, open spaces, multi-purpose sports, entertainment, and event venues, as well as pools, gyms and sports grounds throughout the district. These facilities help to provide for the physical and mental well-being of everyone who spends time in our district.

VARIATION BETWEEN THIS ANNUAL PLAN AND THE LONG-TERM PLAN

Some extra funding is needed from Council to complete work on the central government funded Taupō Town Centre Transformation project and modifications are planned for the delivery of the asbestos removal from Council's elderly housing for the elderly stock project.

KEY PROJECTS

These are the key projects that we have planned for the coming year are:

| PROJECTS | YEAR(S) | TOTAL COST | COMMENTS |
|----------------------------------------------------------------------|---------|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ONGOING PROJECTS | | | |
| New neighbourhood reserves | 2021-31 | \$13 million | |
| Turangi Recreation and Events Centre | 2021-25 | \$15.9 million | On track as planned |
| New library books | 2021-31 | \$3.4 million | |
| Playground improvements | 2021-31 | \$2 million | |
| NEW PROJECTS | | | |
| Town Centre Transformation | 2022-23 | \$2.4 million (total is \$4.4 million across transport and community facility projects) | This project is already being funded \$20.6 million by central government as a shovel-ready project. The additional cost is to enable us to take the opportunity to complete this landmark town centre project to the desired standard. |
| DEFERRED PROJECTS | | | Deferred Projects |
| Housing for the Elderly asbestos removal and insulation improvements | 2021-22 | \$1.4 million | Project scope has changed, and more work is needed to improve Council's housing stock beyond what was planned through this project. Some asbestos remediation work will be undertaken instead |



WASTEWATER

CHANGES TO COUNCIL'S CAPITAL PROJECTS PROGRAMME DELIVERY

WHAT WE DO AND WHY WE DO IT

We collect, treat, and dispose of wastewater from residential, commercial and industrial properties located in our urban areas. We do this through the 12 wastewater schemes we operate across our district and maintain the pipe network and pump stations associated with each network.

The safe treatment and disposal of wastewater is essential to protect the health of our environment and communities. We are required to obtain resource consents from Waikato Regional Council to ensure that we are treating and disposing of the wastewater in a way that protects our environment.

VARIATION BETWEEN THIS ANNUAL PLAN AND THE LONG-TERM PLAN

There are no material variations forecasted between our key wastewater activities for the coming year and those forecasted in the Long-term Plan.

Just like with the water projects, funding to complete these wastewater projects will be met through external borrowings and responsibility for the debts will be transferred to the new three waters entity upon its creation.

KEY PROJECTS

These are the key projects that we have planned for the coming year are:

| PROJECTS | YEAR(S) | TOTAL COST | COMMENTS |
|----------------------------------------------|---------|----------------|---------------------|
| ONGOING PROJECTS | | | |
| Taupō wastewater southern trunk main upgrade | 2021-24 | \$10.2 million | On track as planned |

SOLID WASTE

CHANGES TO COUNCIL'S CAPITAL PROJECTS PROGRAMME DELIVERY

WHAT WE DO AND WHY WE DO IT

We provide a solid waste management system for refuse and recyclables. Our waste services include operating a landfill and resource recovery centre at Broadlands Road, five transfer stations and street litter and recycling bins. We manage solid waste to reduce the likelihood of harm to people and the environment, and to retain the districts attractive appearance for residents and visitors. Our solid waste services also contribute to the community's environment and economic outcomes.

We are required to obtain resource consents from Waikato Regional Council to ensure that we are treating and disposing of the waste in a way that protects our environment.

VARIATION BETWEEN THIS ANNUAL PLAN AND THE LONG-TERM PLAN

The Broadlands Road Landfill is operated with individual "cells" with its own liner and reticulation system for leachate. When a cell is full, it is capped with soil so that decomposition does not cause adverse environmental effects (odour, methane, uncontrolled toxic leachate etc.). The existing cells have been assessed as having sufficient space and the project to build new cells has been deferred for delivery.

Similarly, the landfill gas flare and liner cover project has also been deferred, pending the renewal of the existing resource consent by Waikato Regional Council. The consent expires in 2027 and work on renewing it has started. If the consent is unable to be renewed, then work on the gas flare will not be able to proceed. A \$100,000 grant has been received from the Government for this work, which will now go towards funding a weigh bridge at the Turangi transfer station.

KEY PROJECTS

These are the key projects that we have planned for the coming year are:

| PROJECTS | YEAR(S) | TOTAL COST | COMMENTS |
|----------------------------------------------------|---------------------|---------------|----------------------------------|
| ONGOING PROJECTS | | | |
| Build new cells at the Broadlands Road Landfill | 2021-23 and 2026-28 | \$2.2 million | Deferred as not yet required |
| Broadlands Road Landfill gas flare and liner cover | 2021-31 | \$4 million | Deferred pending consent renewal |

INVESTMENTS

CHANGES TO COUNCIL'S CAPITAL PROJECTS PROGRAMME DELIVERY

WHAT WE DO AND WHY WE DO IT

Council holds a number of investments where there is a community, social, physical or economic benefit from holding the investment.

The type of investments that we have include property and cash which we invest to generate a return. Many of the investments generate income which can be used on projects and initiatives which benefit our residents without impacting on rates. This group of activities contributes to the economic community outcome.

VARIATION BETWEEN THIS ANNUAL PLAN AND THE LONG-TERM PLAN

The major variation between the Annual Plan and Long-term Plan is the bringing forward of the civic administration building fit-out. Although it is in the Long-term Plan, it was not scheduled to start till 2024-25. The project has been brought forward by two years and the budget has also increased. Bringing forward the fitout process will allow us benefit from efficiencies accruable by having the workers doing the construction also installing the required fitout materials.

KEY PROJECTS

These are the key projects that we have planned for the coming year are:

| PROJECTS | YEAR(S) | TOTAL COST | COMMENTS |
|-----------------------------------------|---------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ONGOING PROJECTS | | | |
| Waiora House rebuild | 2021-23 | \$5.9 million | On track as planned. |
| NEW PROJECTS | | | |
| Civic Administration building - fit out | 2022-25 | \$4.9 million | Now scheduled to begin earlier than planned to align with the completion of the build. Te Whare Hono o Tūwharetoa Limited Partnership will construct the building and Council will lease part of it. Fit out costs have increased by \$1.1 million due to the rise in construction costs. |



CHANGES TO COUNCIL'S FEES AND CHARGES

We provide a wide range of services and functions to the community that carry costs. Some of these costs are paid for out of general or targeted rates and others are recovered from government. However, where a service or activity benefits an individual customer (e.g., a dog registration benefits an individual dog owner, or a resource consent benefits the individual applicant), Council applies a fee to cover the cost of delivering that service.

Setting fees and charges on a user-pays basis helps to ensure that costs are distributed fairly and that rates increases are kept to a minimum where possible. Council reviews these fees and charges every year as part of our annual budgeting process.

The majority of our fees and charges were set for three years as part of the Long-term Plan process and these remain largely unchanged. However, in a small number of cases we are proposing some changes to those set fees.

Additionally, the unknown effects of Covid-19 on events meant that most of our venue hireage fees were not set for three years either. Those figures have also now been updated.

We recommend you view the full schedule of fees in Appendix One which is online at taupo.govt.nz/haveyoursay. However a summary of some of the main proposed changes are set out below:

BUILDING SERVICES

- Charges for Demolition/Removal Application (includes one inspection) have been increased from \$200 to \$350 to better reflect the actual time spent processing each application
- Building consent authority (BCA) fees have now included a number of services which were previously excluded. This provides greater transparency around the full charges associated with those services.
- A new category has been introduced for processing code of compliance certificate applications for commercial buildings.

ENGINEERING SERVICES

- The rate for other staff involved with development engineering applications has been reduced to better reflect the skillsets and experience levels that are covered by the charge.

ENVIRONMENTAL HEALTH

- All registration renewals for hairdressers, campgrounds, undertakers, and offensive trades require a site inspection, therefore the option for a registration renewal without an inclusive site inspection fee has been deleted.
- Introduction of a "Significant Amendment to Food Control Plan Registration" fee in response to increasing demand for this service.

SOLID WASTE

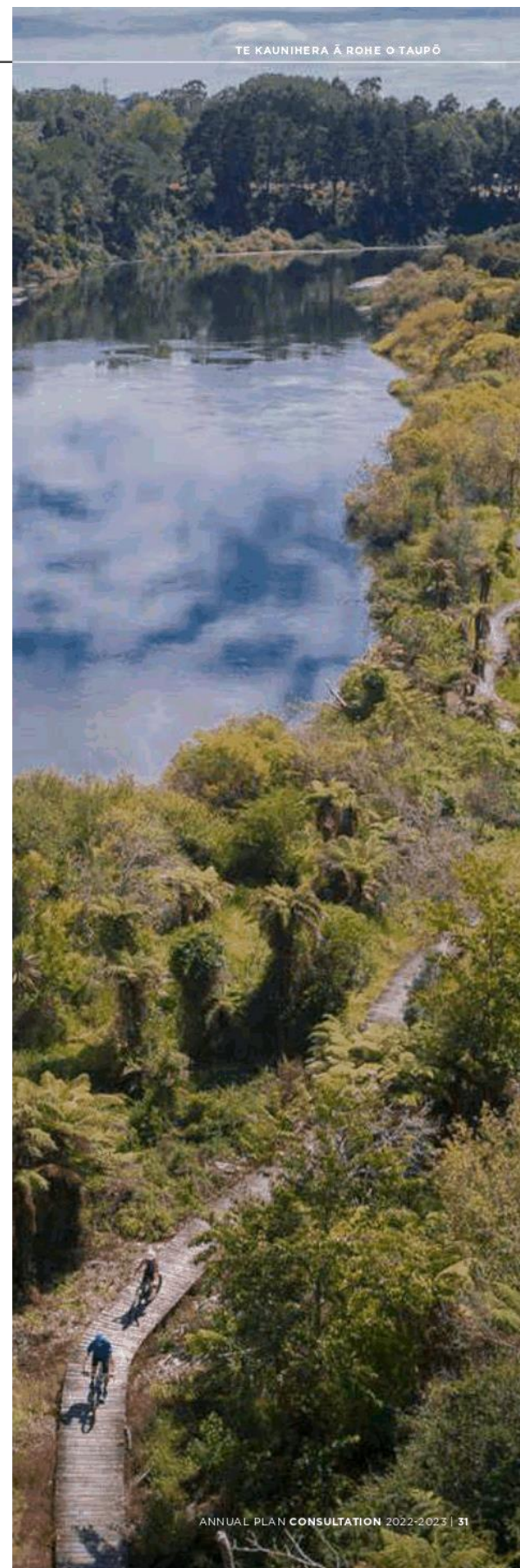
- Council's landfill charges are influenced by the Government's waste disposal levy and the requirement to purchase carbon units under the Emissions Trading Scheme. As we've noted earlier in this document, the amount charged under these initiatives have risen sharply and will likely continue to do so for some time. These changes have in turn impacted on our landfill user charges.
 - The per tonne refuse disposal charge will increase from \$140 to \$170 in 2022/23
 - Small load charges will increase from \$14 to \$17 in 2022/23
 - Medium load charges will increase from \$35 to \$42 in 2022/23
 - Large load charges will increase from \$56 to \$68 in 2022/23
 - Special waste requiring immediate charges will increase from \$145 per tonne to \$178 in 2022/23

PARKS AND RESERVES

- The hourly rate for community groups to hire a corporate lounge at Owen Delany Park has been increased from \$18 to \$36 per hour
- The daily hire charge for the Kaimanawa cricket pavilion has been set at \$180 which is the same as the fee for 2021/22 (this year)

COMMUNITY FACILITIES

- A number of minor typographical errors have been corrected
- The adult age has been set at 16+ years and standardised across all venues. Discounted entry for people 16 years and above is available either under a senior or student entry
- Fees for a joint fitness studio and pool membership at the AC Baths / Taupō Events Centre have been reduced by five percent below the original amounts projected for 2022/23
- Venue hire fees for Taupō Events Centre and the Great Lake Centre are now set for 2022/23 and 2023/24
- Charges for a six-week booking of the exhibition space and the gallery space at the Taupō Museum have both been increased by 2%



REFRESHING COUNCIL'S SIGNIFICANCE AND ENGAGEMENT POLICY

Council is committed to making informed and sustainable decisions in the best interests of our communities. We want to ensure the decisions we make made reflect the aspirations of tangata whenua, residents, ratepayers, community groups and business. To help us to make the best decisions, we engage with our communities daily using a number of tools. Sometimes, this is simply to provide information, and other times we seek input into our decision-making processes.

In line with legislative requirements under the Local Government Act 2002 (the LGA), Council has a Significance and Engagement Policy that helps us identify how and when our communities can expect to be engaged or consulted on decisions about issues, proposals, assets and activities. The current policy was adopted in 2014 and is now being reviewed.

The Significance and Engagement Policy enables us (as Council) and our communities to understand the significance that we place on certain issues, proposals, assets, decisions, and activities. It also explains how and when the community can expect to be engaged in, or specifically consulted on, decisions about issues, proposals, assets, decisions and activities.

WHAT CHANGES ARE WE PROPOSING TO THE POLICY?

Across the entire policy, we are making changes to refine and simplify the existing text. This will strengthen the policy as a whole, as well as make it user-friendly and easier to understand.

The full text of the draft policy can be found in Appendix Two, which is online at taupo.govt.nz/haveyoursay, but below is a summary of the main proposed changes.

INTRODUCTION OF A BACKGROUND SECTION

We have included a background section to the policy to set out Council's commitment to inclusive localism and introduced the tool we will be using to guide our engagement towards achieving it.

Our engagement will be in line with the provisions of the International Association for Public Participation (IAP2) spectrum. IAP2's Spectrum of Public Participation has been designed to assist with identifying the appropriate level of participation to complement the public's role in any public participation process. The Spectrum is used widely both internationally and within New Zealand, and it is found in the public participation plans of many other councils.

This proposal represents a departure from our current binary approach in which any decision to engage is guided by the flow chart process in schedule two of the current policy. Rather the new approach better reflects the fact that engagement is along a spectrum and sometimes engagement might simply be about providing an update to the community or stakeholders and other times it may be a more involved and detailed process.

UPDATES TO THE SIGNIFICANCE SECTION OF THE POLICY

The main update in the significance section of the draft policy is about the assessment of significance. We are proposing to introduce criteria to help clarify the determination of significance. This assessment is along a continuum flowing from none through to high, with illustrative examples.

We also want to clarify that where a number of proposals or decisions are to be taken together, as part of a project for instance, significance should be assessed on the cumulative impact of the whole package.

UPDATES TO ENGAGEMENT SECTION OF THE POLICY

Council has long committed itself to engaging with Māori, and this approach is evident in the work we do and how we do it. Under the engagement section of the draft policy, we are proposing to introduce a new subsection that details out this commitment and how we give effect to it. The proposed change simply puts into writing the ethos that already underpins the work Council does with tangata whenua.

We are also proposing to introduce some guidance around Council's methods of engagement in the policy. These have been set out in table form to help show how the nature of a matter under consideration will determine how we make decisions on it and also guide how we will go about communicating and/or engaging with the community.

Table 2 in the draft policy illustrates the various of engagement in the IAP2 Spectrum that may accompany a matter; while Table 3 shows the correlation between project planning and engagement and examples of what forms of engagement may occur at the different stages of a project cycle.

UPDATES TO THE SCHEDULE OF STRATEGIC ASSETS

Strategic assets, as defined under the Local Government Act 2002, are assets or groups of assets that the council needs to continue to own in order to achieve outcomes that are important to the current or future well-being of the community.

We are proposing to modify the list of strategic assets in accordance with the following key principles:

- assets which are not used for the delivery of services are not considered strategic,
- identifying assets as groups or networks to better reflect the way in which they deliver services and enable us to respond to changing needs.

In line with these principles, our list of identified strategic assets better reflects their importance to Council's ability to deliver services and are protected accordingly.



TOWNCENTRE TAUPŌ MANAGEMENT RATE INCREASE

Towncentre Taupō (TCT) is a member-based organisation established to promote the development of Taupō's Central Business District as a safe and vibrant space, while retaining our town's unique identity. All businesses operating within Taupō's town centre are therefore members of TCT by default. Council supports TCT in its work through a dedicated target rate which is paid by TCT members as part of their annual rates.

The Towncentre Taupō management rate is set under section 16 of the Local Government (Rating) Act 2002; and is used to fund services to enhance and develop the social and economic wellbeing of the Taupō central business district. The TCT management rate is assessed on each separately used or inhabited part of industrial or commercial rating units within

the defined central business district part of Taupō town (refer to the map on page 37).

As part of the Long-term Planning process, the TCT management rate for 2022/23 was set at \$174,590 and rising to \$179,010 in 2023/24 – representing a 2.5% annual increase for each year. However, for many of the same reasons we have talked about through this consultation document, Towncentre Taupō's operating costs have increased while the sponsorship they would normally secure for some of their events has also dwindled.

Due to these constraints, TCT is requesting for an additional \$8,500 increase to their 2022/23 budget – representing a 4.9 percent increase to the rates.

INCREASE TCT BUDGET (GST EXCLUSIVE)

| RATING YEAR | TCT BUDGET | LONG-TERM PLAN FORECASTED BUDGET | INCREASE | % INCREASE ABOVE LTP FORECAST |
|-------------|------------|-------------------------------------|------------|----------------------------------|
| 2022/23 | 183,113.46 | 174,590.00 | \$8,523.46 | 4.88% |

ESTIMATE IMPACT ON TARGETED RATE ASSESSED ON EACH SEPARATELY USED OR INHABITED PART

| INCREASE | FACTOR * (SUIP) | GST EXCL | GST INCL |
|-------------|-----------------|----------|----------|
| \$ 8,523.46 | 533 | 15.99 | \$18.39 |

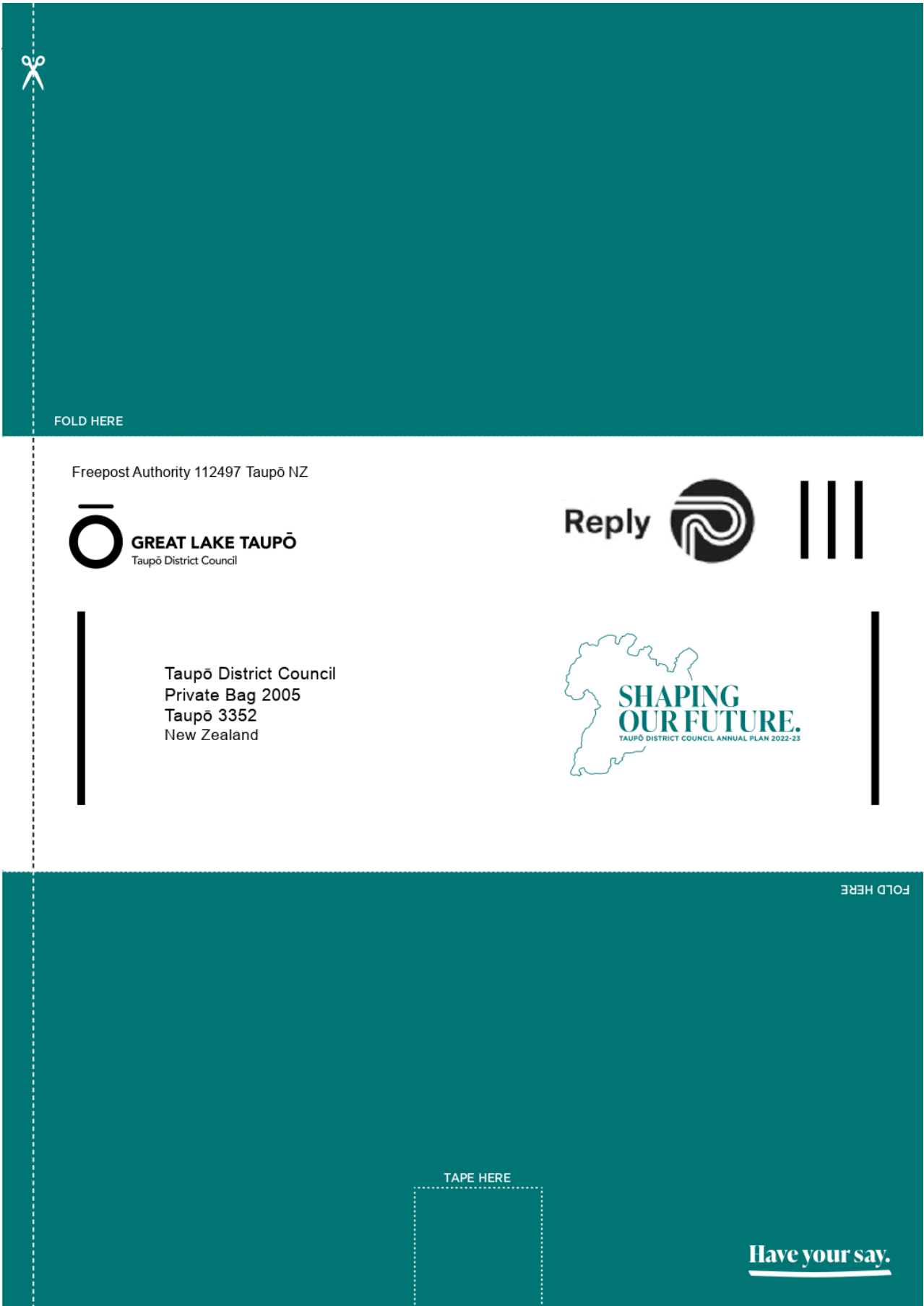
* Note - The divisor factor may change as it depends on the number of separately used or inhabited parts (SUIPs) within the rating area as of 1 July 2022. In commercial situations, a SUIP will apply for each individual tenant or lessees, using a trading premise.

ESTIMATE OF INCREASE TO THE TARGETED RATE FOR 2022/23 (GST INCLUSIVE)

| RATE | 2021/22 | ESTIMATED INCREASE PER SUIP | ESTIMATED RATE FOR 2022/23 BASED ON 533 SUIP'S |
|---------------------|---------|-----------------------------|---------------------------------------------------|
| TCT Rate (GST inc.) | 366.79 | 18.39 | \$385.18 |







NAME _____

POSTAL ADDRESS _____

EMAIL _____ BEST DAYTIME CONTACT NUMBER _____

If you are completing this submission on behalf of others please name the organisation:

Submitters are advised that the information supplied in written submissions may contain personal information within the meaning of the Privacy Act 2020. By taking part in this public submission process, submitters have agreed to any personal information (including names and contact details) which is contained in their submission being made available to the public as part of the consultation and decision making process. All information collected will be held by Taupō District Council. Submitters have the right to access and correct personal information. Submissions will be published on the council's website as part of the public process.

You do not need to answer these questions but the information you provide will help us understand which parts of the community are engaging with us.

☐ Female ☐ Male

☐ Other (please specify): _____

☐ Under 15 ☐ 15-17 ☐ 18-24 ☐ 25-34
☐ 35-44 ☐ 45-54 ☐ 55-64 ☐ 65-74
☐ 75+

(Please select as many as apply)

☐ Pākehā/NZ European

☐ Māori

☐ Pacific Islander

☐ Indian

☐ Chinese

☐ Other Asian

☐ Middle Eastern

☐ Latin American

☐ African

☐ Other

PLEASE LET US KNOW YOUR THOUGHTS ON WHAT WE ARE PROPOSING IN OUR ANNUAL PLAN 2022-23 CONSULTATION DOCUMENT:

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There are approximately 20 lines visible. The paper has a slight shadow on its right side, suggesting it's resting on a surface.

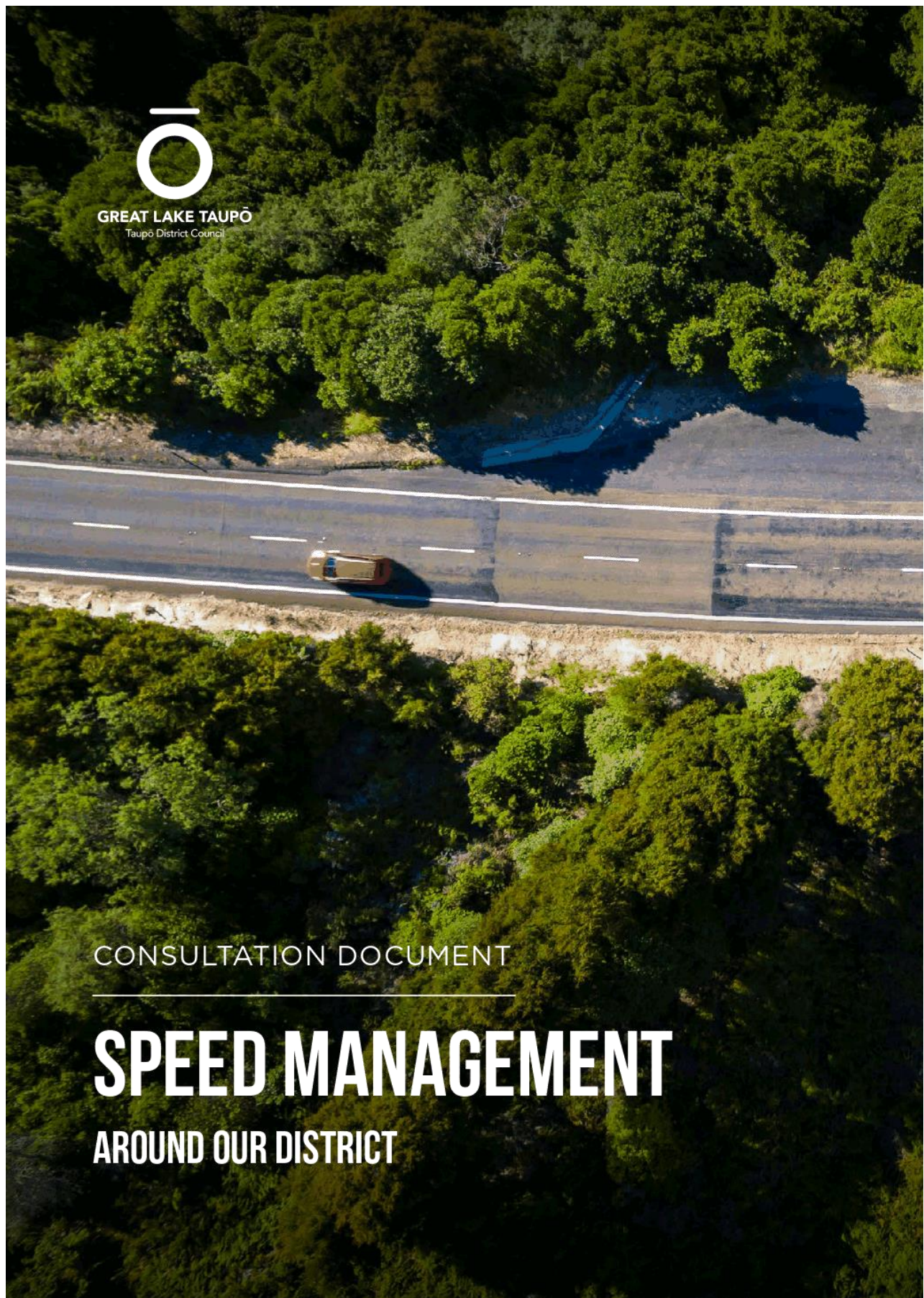
DO YOU WISH TO BE HEARD IN PERSON ON YOUR SUBMISSION? HEARINGS WILL BE HELD ON 23 AND 23 MAY 2022. YES / NO

Thank you for your feedback. Please fold this form and freepost back to Taupō District Council, to reach us no later than 4.30pm on Thursday 14 April.





[TAUPO.GOV.T.NZ/HAVEYOURSAY](https://taupo.govt.nz/haveyoursay)



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.

SPEED MANAGEMENT IS KEY

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

THE WAY WE CURRENTLY MANAGE VEHICLE SPEED

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:
 - What is next to the road (e.g. housing, schools, playgrounds, retirement homes, tourist attractions).
 - What is on the roadside (e.g. footpaths, cycle lanes, power poles, trees, barriers, berms, ditches, gullies, cliffs).
 - 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 ARE THE SPEED LIMIT CHANGES 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 |
|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 From 2022 until 2024 | Roads and routes that we expect to bring the greatest reduction in crashes. The roads that connect to these to ensure the network is easy to navigate. Streets where there are lots of people moving around - for example in town centres and outside schools. Roads where the community are calling for change. |
| 2 From 2024 until 2027 | Continue to focus on key roads and surrounding areas where making changes will bring a reduction in crashes. Most local neighbourhoods and the streets within them. Roads that require infrastructure to improve safety (e.g. barriers, traffic islands, signage). |
| 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.

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.



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.



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.



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.



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)



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.



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.



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).

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?

YOU CAN HAVE YOUR SAY IN THE FOLLOWING WAYS:

- Visit taupo.govt.nz/haveyoursay
- Send your feedback to speedlimits@taupo.govt.nz
- Phone us on 07 376 0899 to request a feedback submission form. We will post one to you.
- 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.
- Mail: Speed Management Changes
The Chief Executive Officer
Taupō District Council
Private Bag 2005
Freepost No. 112497
- Pop along to talk to one of our Speed Management team at one of the drop-in sessions. You can find out more information about these sessions at: taupo.govt.nz/haveyoursay

HAVE YOUR SAY

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 also 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:

- Our Draft Speed Management Plan was approved by councillors in February.
- We are now engaging with our community about our draft Speed Management Plan.
- Consultation is open from 14 March until 4.30pm on Friday, 13 May 2022.
- 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.

CONSULTATION SPEED MANAGEMENT | 7

SPEED MANAGEMENT AROUND OUR DISTRICT

SCHOOL ZONES

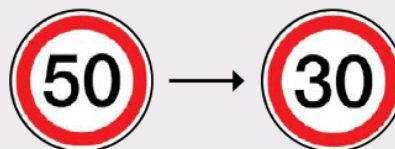
There is national direction to introduce lower speed limits outside schools/kura to make it safer for everyone in the area.

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.

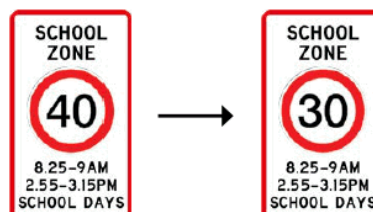
ADDI Enrichment Academy, Hilltop School, Mangakino Area School, Taupō Intermediate, Te Kura o Hirangi, TKKM o Whakarewa i Te Reo Ki Tuwharetoa, Tongariro School, Waipahihi School, Wairakei School, Tauhara College, Mountview School, Taupō-nui-a-Tia College

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.



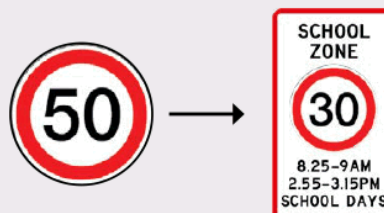
Taupō-nui-a-Tia College

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.



Taupō Primary School (Titirāupenga St frontage), St Patrick's Catholic School (Taupō), Tauhara Primary School, Lake Taupō Christian School

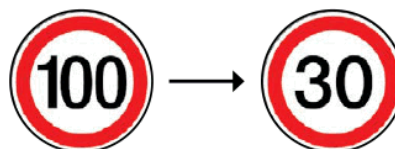
These schools are located on busier roads. Given the high traffic volume of these roads, it is more practical for the 30 km/h speed limit to apply only at the start and end of the school day when students are going to and from school.



Rangitaiki School (Rural Road)

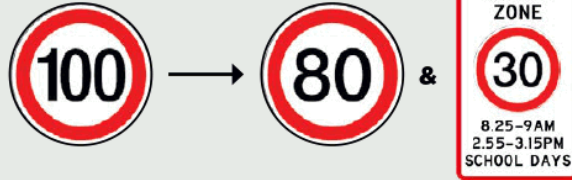
Rangitaiki School is located on an access road that joins to a 100km/h rural road.

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.

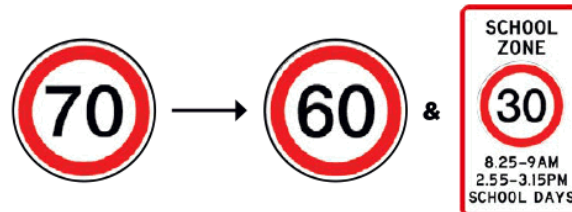


Tirohanga School

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.

**Whakamaru School**

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.



SPEED MANAGEMENT AROUND OUR DISTRICT

RURAL 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 deaths resulting in crashes and serious injuries.

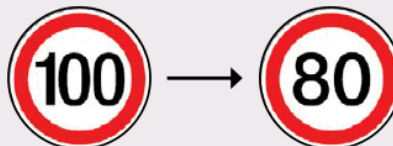
Some of our rural roads are busy arterial routes. Speed reductions will have a small impact on most people; however, the impact may be more significant for businesses who make many trips over a day.

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.

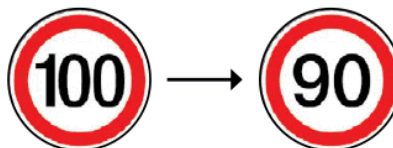
Poihipi Road East (Tukairangi Road to Whangamata Road)

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.



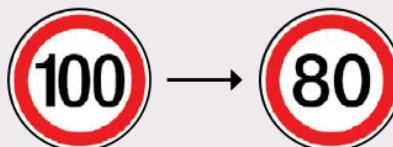
Poihipi Road Middle (Whangamata Road to Tirohanga Road)

This section of Poihipi Road has lower 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.



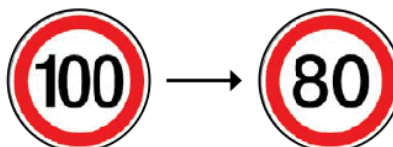
Poihipi Road West (Tirohanga Road to SH32)

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.



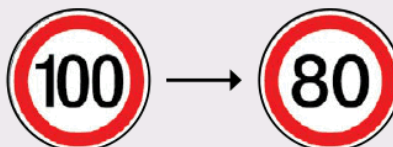
Broadlands Road (SH1 western on-ramp to View Road)

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.



Tukairangi Road

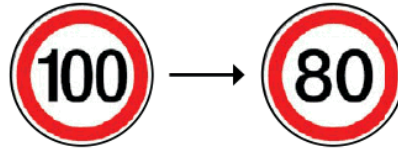
Because of the physical nature of Tukairangi Road and its connection to other major rural roads in the area (e.g. Poihipi and Mapara Roads) it is proposed we reduce the speed limit to 80km/h for consistency within the roading network.



Whangamata Road (from Poihipi Road to Otake Road), and Hitiri Road

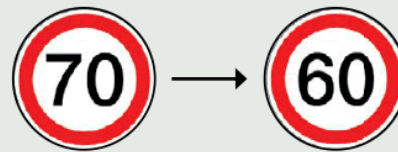
Whangamata Road is the main connecting road from Poihipi Road into Kinloch. There are a number of driveways along this stretch of road.

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



Mapara Road and roads that connect to this (from Hill View Drive to Acacia Heights Drive)

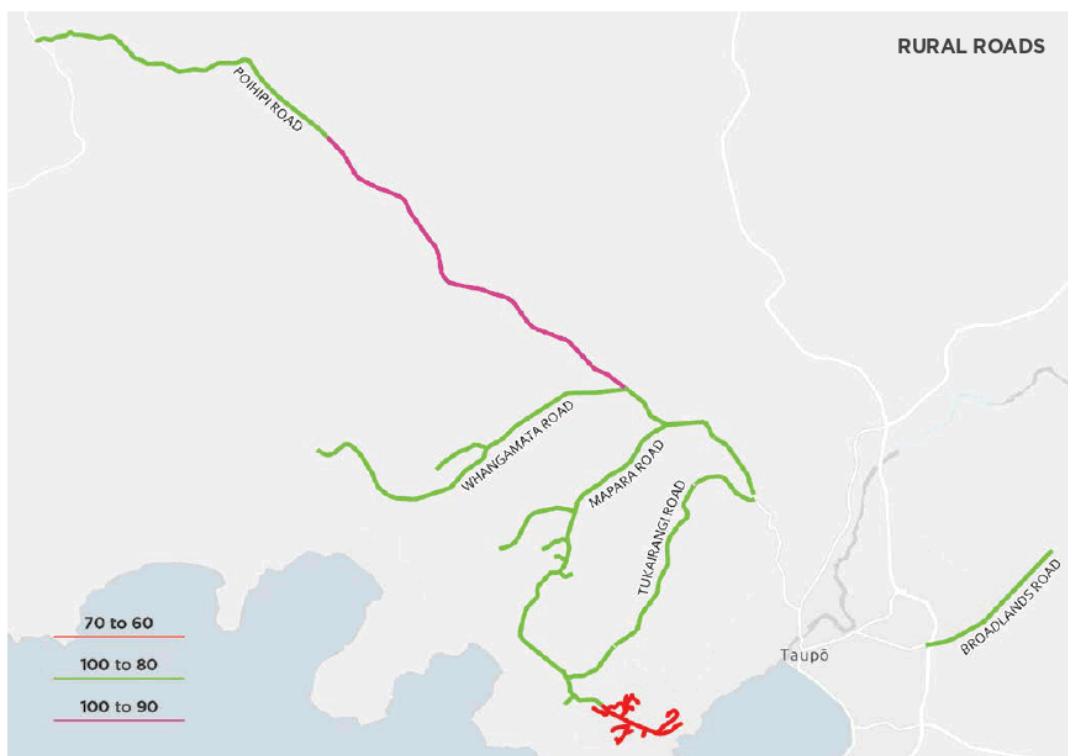
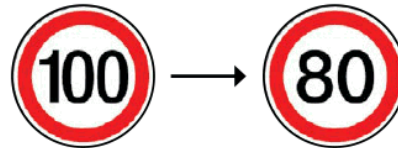
A number of lifestyle blocks exist on the south-eastern end of Mapara Road and the roads that connect to this. All of these side roads are no exit and steep. A slight reduction to 60km/h will create a safer environment for the community.



Mapara Road (west of Hill View Drive to Poihipi Road) and roads that lead off this.

We have received a number of requests from the community to reduce the speed limit along Mapara Road.

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.



SPEED MANAGEMENT AROUND OUR DISTRICT

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 Titirāpunga Street

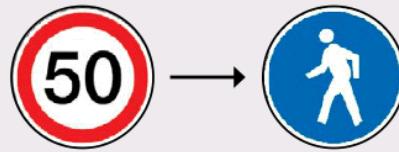
and reducing speed limits on Roberts Street to create a shared space along part of Lake Terrace.

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.

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.

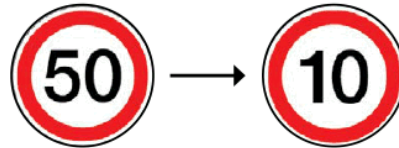
This stretch of road is being closed to vehicles as part of the project and will become a pedestrian and reserve area.



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.

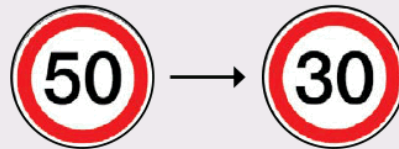
Having Roberts Street as a shared street through reducing the speed limit to 10km/h will encourage and provide greater safety to pedestrians using this area.



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.



These changes are detailed on the Taupō map on page 15

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)

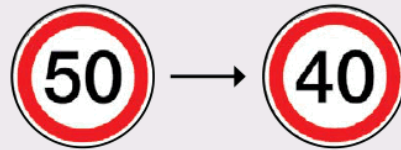
that we need to formalise speed limits.

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.

Wharewaka - streets in Ngā Roto Estate

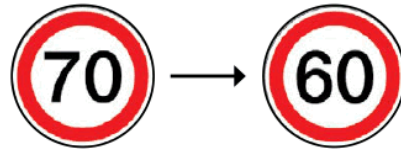
Ngā Roto Estate is a new development. We need to formalise speed limits in this area.

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.



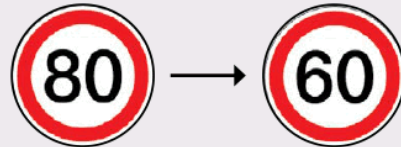
Pokuru Road North (Between SH32 to Kaahu Rd)

Changing to a 60km/h speed limit is consistent with our proposed approach of setting this speed limit for communities in these areas.



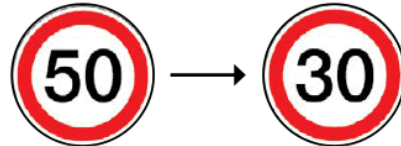
Crown Road (from the existing 50km/h sign to Napier Road)

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.

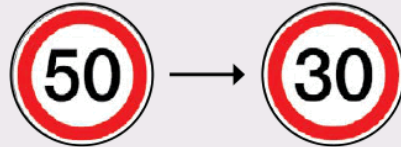


**Continued on page 14*

SPEED MANAGEMENT AROUND OUR DISTRICT

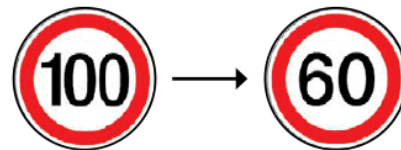
Rifle Range Road and Taharepa (outside the Paetiki Shops)

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.

**Wairakei Village - Kauri Drive (SH 1 town entrance)**

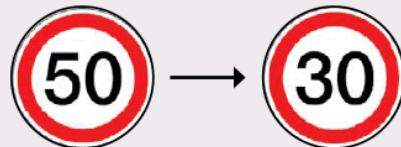
We need to reduce speed limits to ensure the safety of all road users in the area.

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.

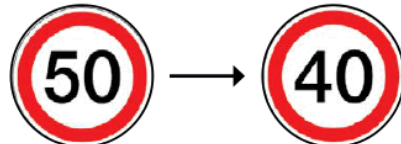
**Wairakei - Kauri Drive (near Wairakei School) and Rata Street (near the shops)**

Reducing speed limits around schools is a national priority.

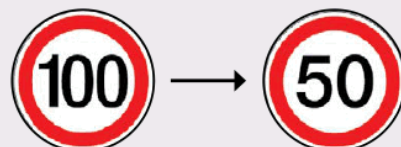
We have also included a speed limit reduction for streets connecting to Wairakei Primary School to maximise the safety of pedestrians and other road users.

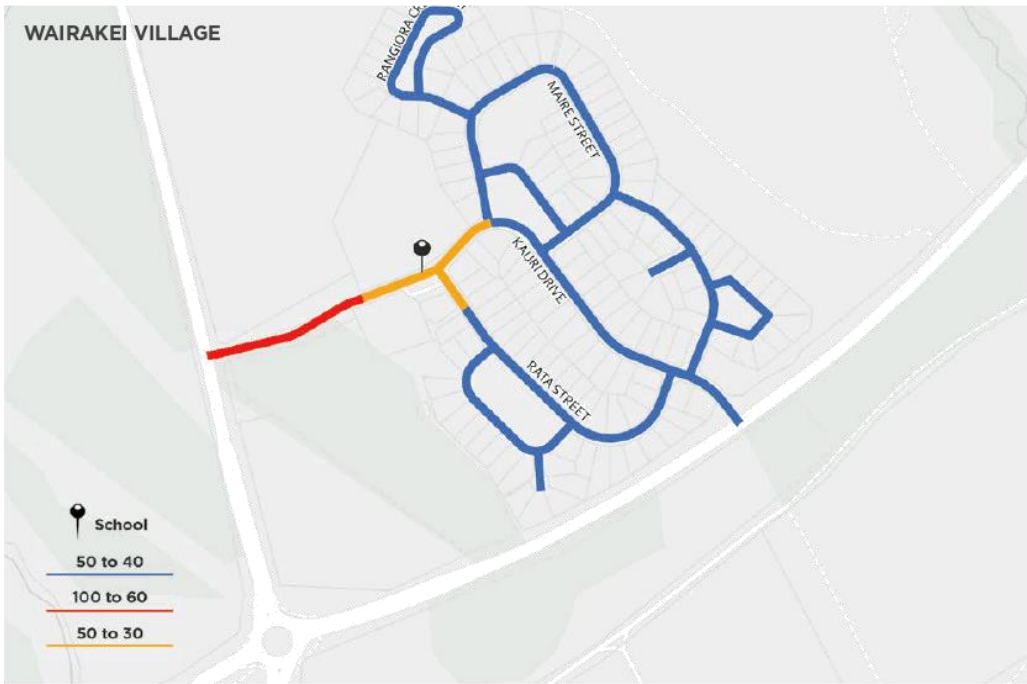
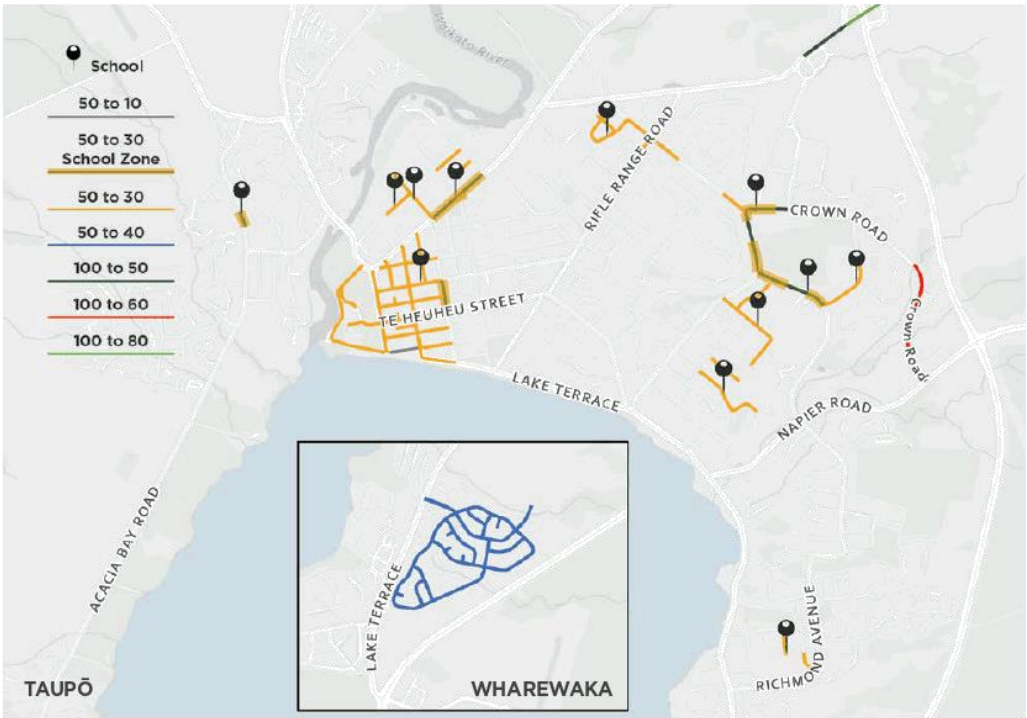
**Wairakei Village - local streets**

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.





SPEED MANAGEMENT AROUND OUR DISTRICT

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.

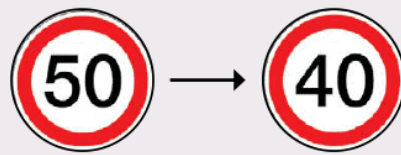
Managing the flow and movement of traffic through

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.

New streets*

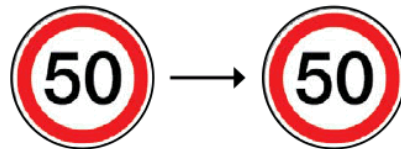
The speed limits in these areas of new development in Kinloch need to be formalised.

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.



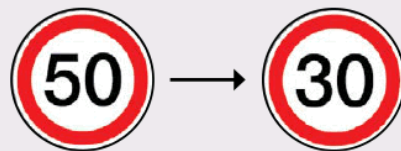
Oakdale Drive*

Oakdale Drive is a new street. The 50km/h speed limit needs to be formalised.

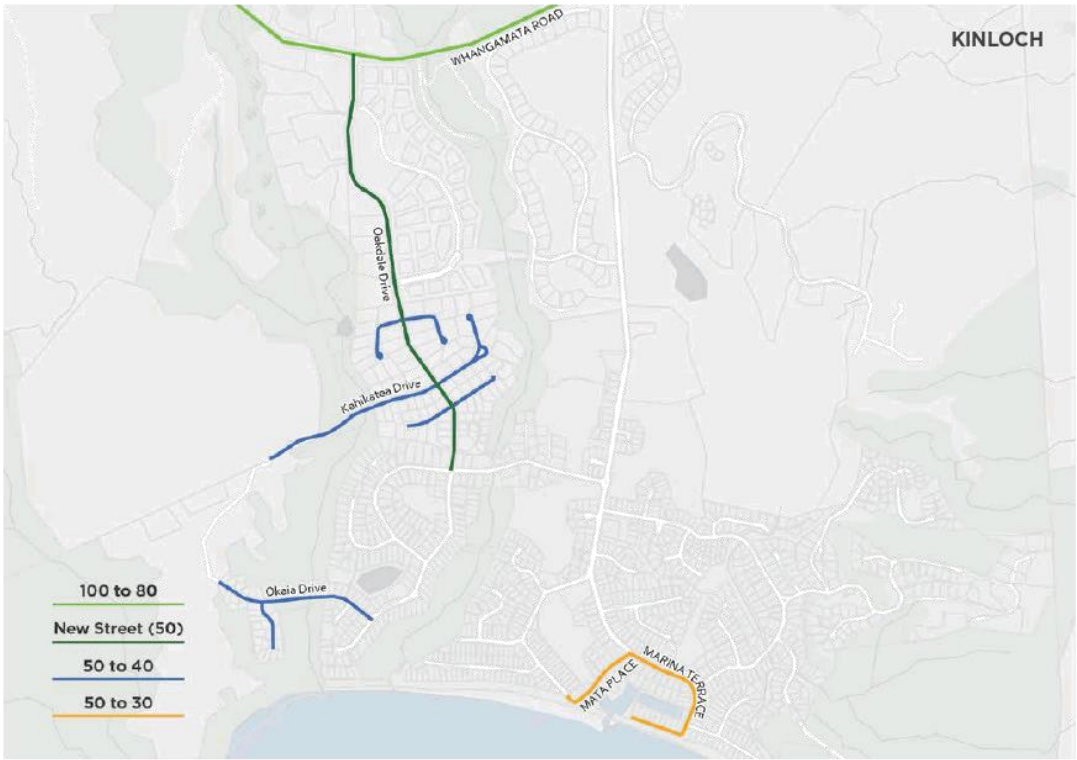


Mata Place to Marina Terrace and Kinloch Esplanade

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*



SPEED MANAGEMENT AROUND OUR DISTRICT

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.

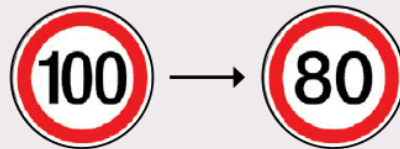
The community has also provided us with feedback

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.

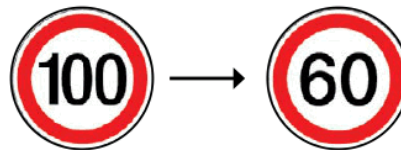
Hirangi Road (from State Highway 41 to 240m west of Papua Street) - including Te Awamate Road

We have received feedback from the community requesting a reduced speed limit along Hirangi Road.



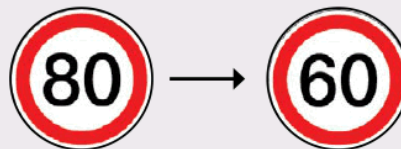
Atirau Road (northwest)

It is proposed we reduce the speed limit to 60km/h for consistency within the roading network.



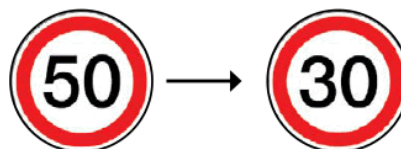
Industrial Area

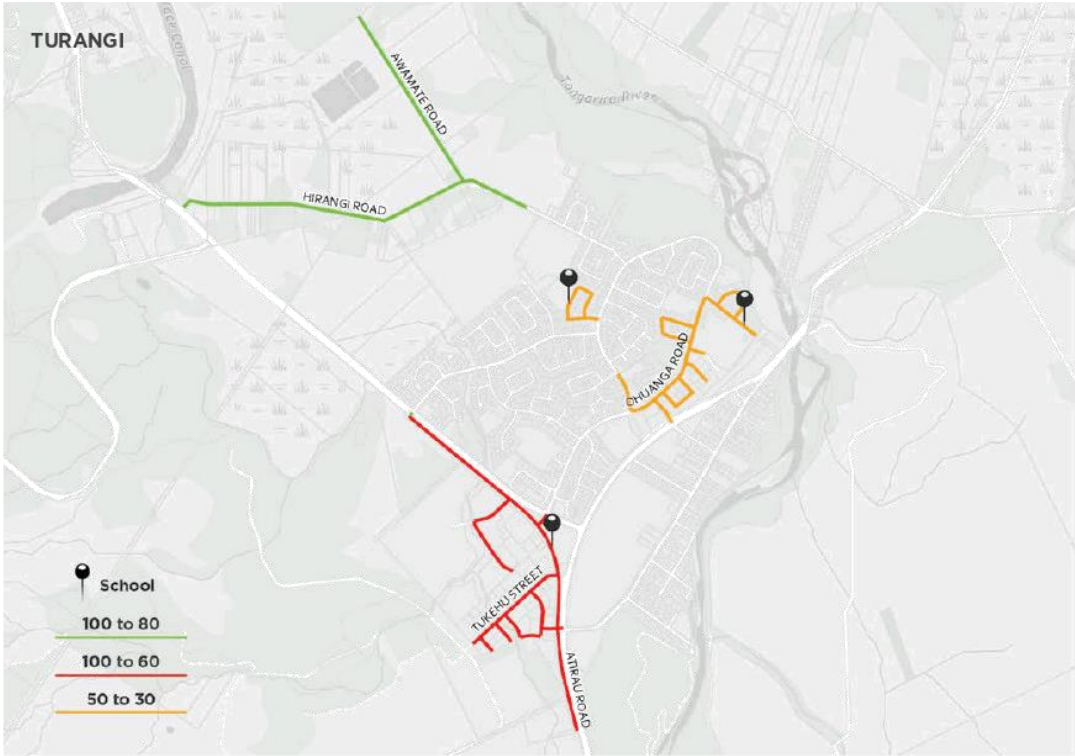
Vehicles and people move around Turangi's industrial area when accessing different businesses. A lower speed limit will create a safe environment for all people in these areas.



Town Centre Roads

Reducing the speed limit to 30km/h is consistent with other high-use pedestrian areas across the District.





SPEED MANAGEMENT AROUND OUR DISTRICT

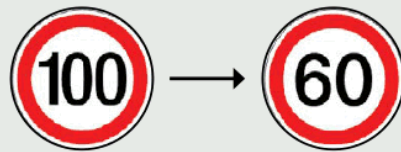
WHAREROA

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.

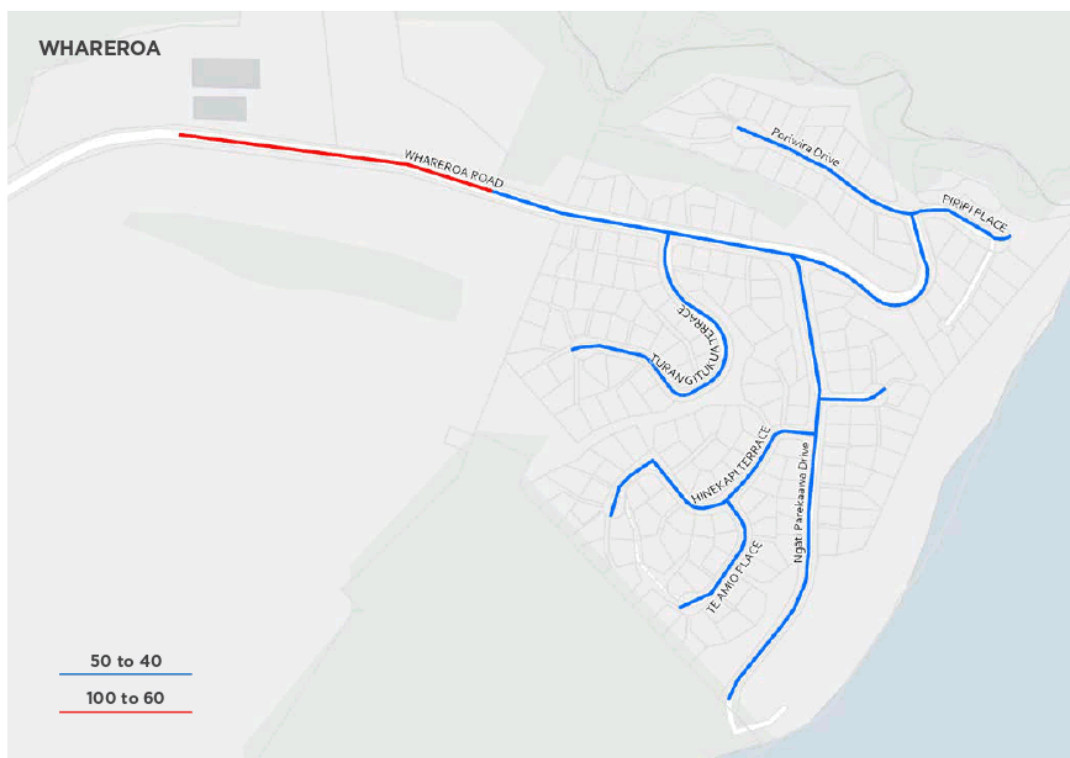
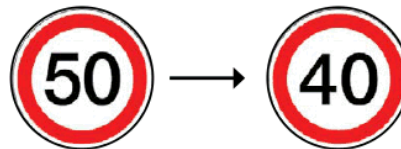
Whareroa Road (village entrance)

Introducing a 60km/h speed limit will prepare road users for slower speed limits as they travel into Whareroa.



Whareroa 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.



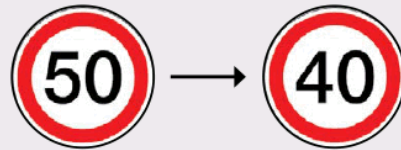
EASTERN BAYS

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.

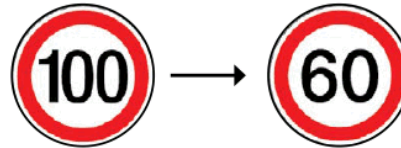
Waitetoko local streets

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.



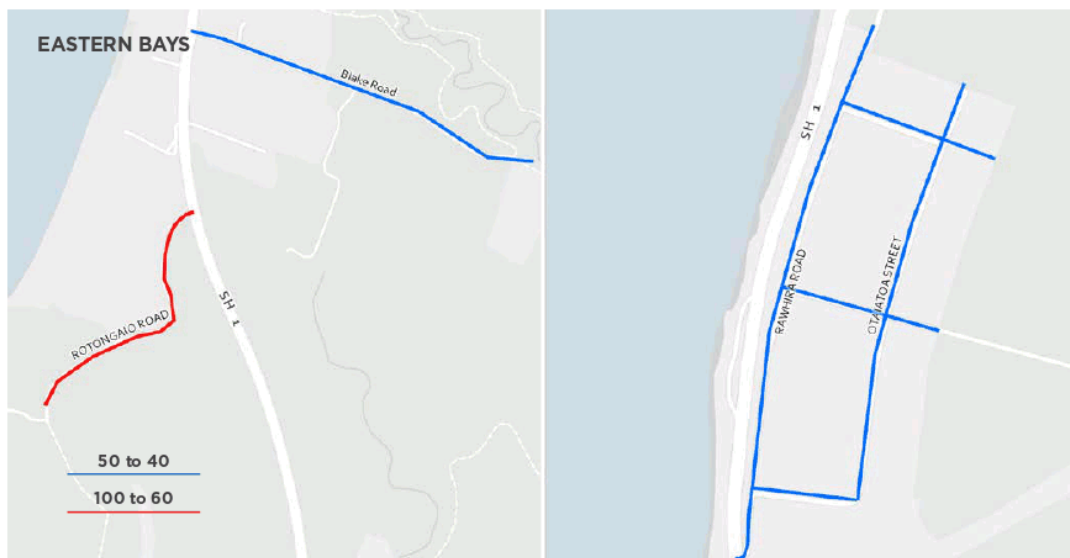
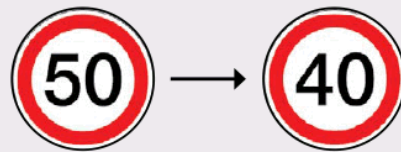
Rotongaio Road

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.





GREAT LAKE TAUPŌ
Taupō District Council

taupo.govt.nz/haveyoursay



Transport Planning and Design
Level 1, 284 Kilmore Street

Taupō District Speed Management Plan



Report prepared for

Taupō District Council

December 2021



Taupō District – Speed Management Plan

This document has been prepared for the benefit of Taupō District Council. No liability is accepted by ViaStrada Ltd, or any of its employees or sub-consultants with respect to its use by any other party.

| Quality Assurance Statement | | |
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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
- rural roads with high safety issues or community concerns
- redevelopment of the Taupō township centre
- community centres in Kinloch and Turangi
- 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.



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Taupō District – Speed Management Plan



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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 crash¹. 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.

¹ 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 programme², 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.

² 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*³ 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 (adapted⁴ from the Speed Management Guide 2016)

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

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

⁴ 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 10 km/h for shared spaces |
|--------------------------------------------------------|------------------------------------------------------------------------------------------|--|----------------------------------------------------------------|

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).

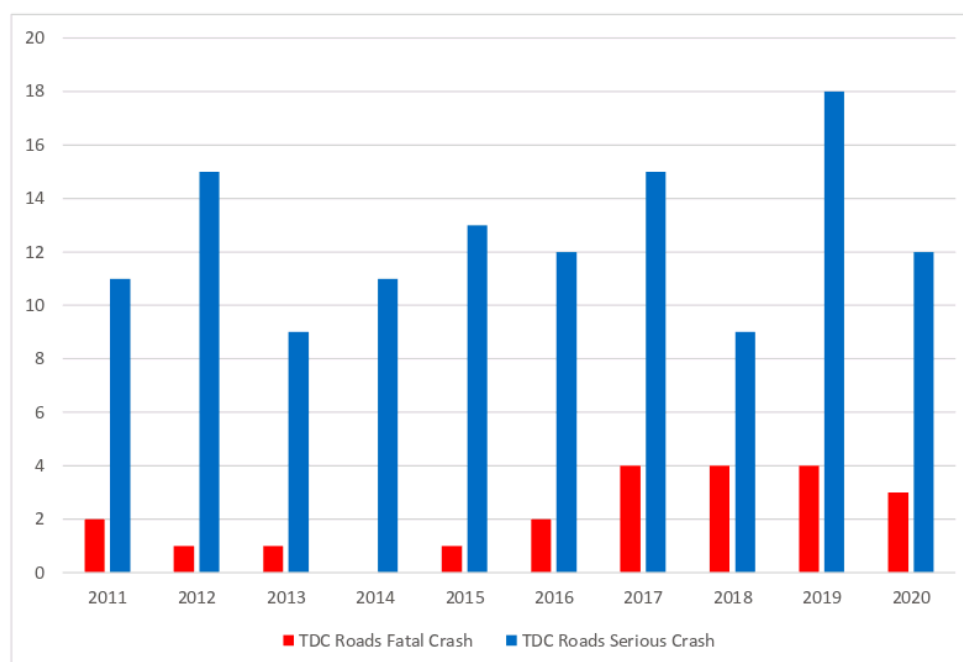


Figure 1 Deaths and Serious Injuries on Taupō District roads 2011-20

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 changes⁵ and the changes came into effect on 1 December 2018⁶.

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

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

⁶ <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. 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 ⁷ – 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. A 30 km/h speed may be applied during school times where the normal speed limit is higher. |
| | 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*

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

5.2 Speed Management Toolbox

The Waka Kotahi Speed Management Toolbox⁸ 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.

⁸ <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.



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



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

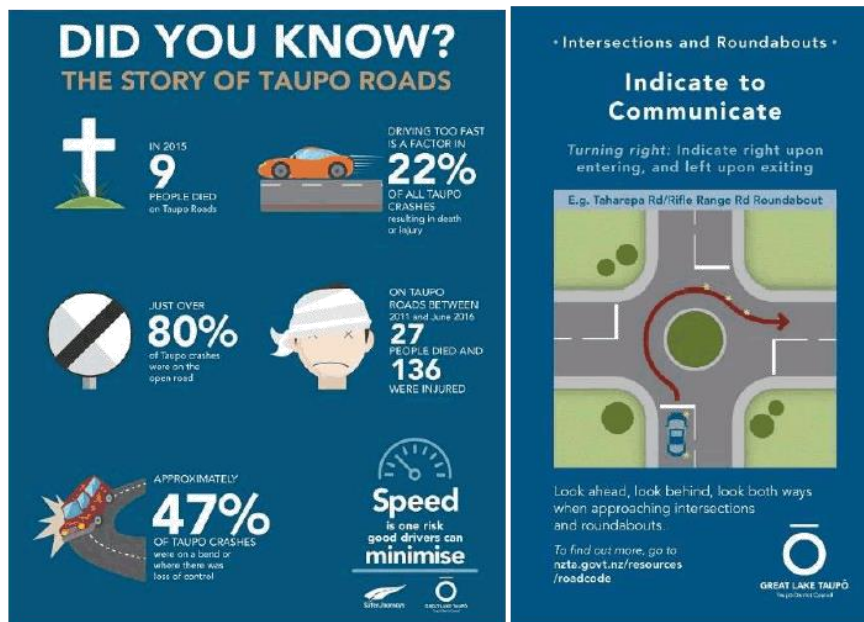


Figure 11 Recent publications for road safety programmes



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.

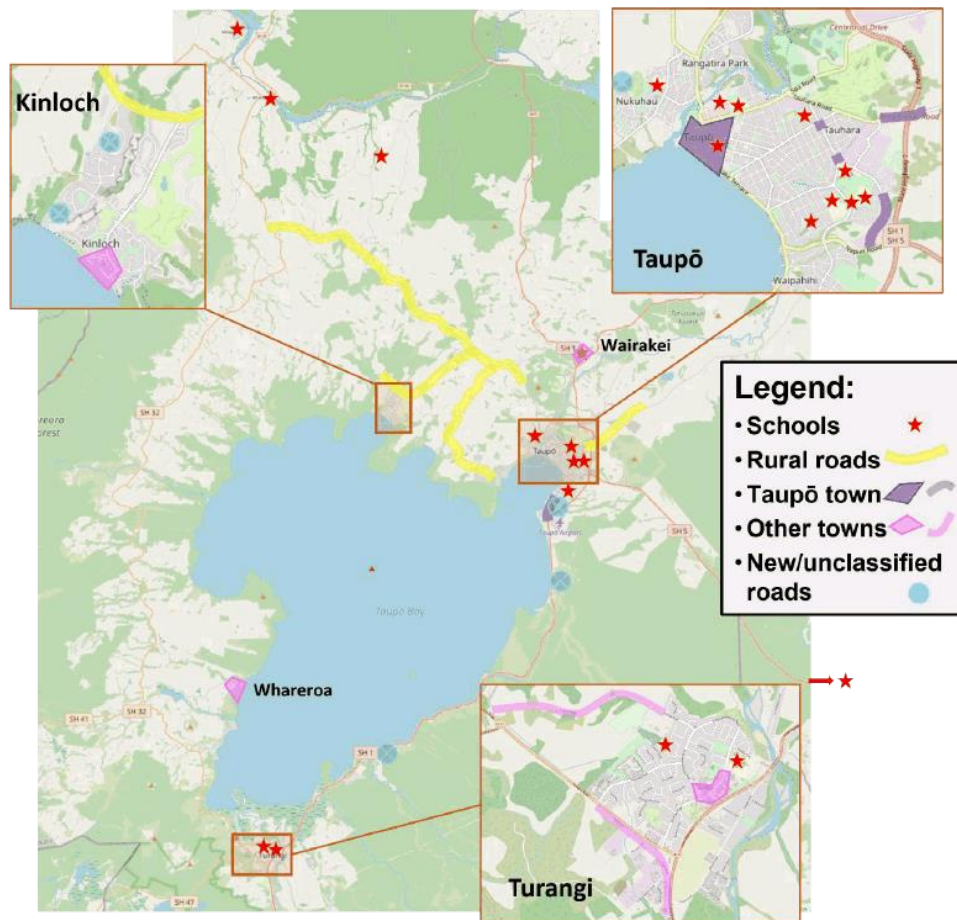


Figure 12 Overview of Priority 1 speed management proposals

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/h⁹.** 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.

⁹ 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 Statement¹⁰ 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.

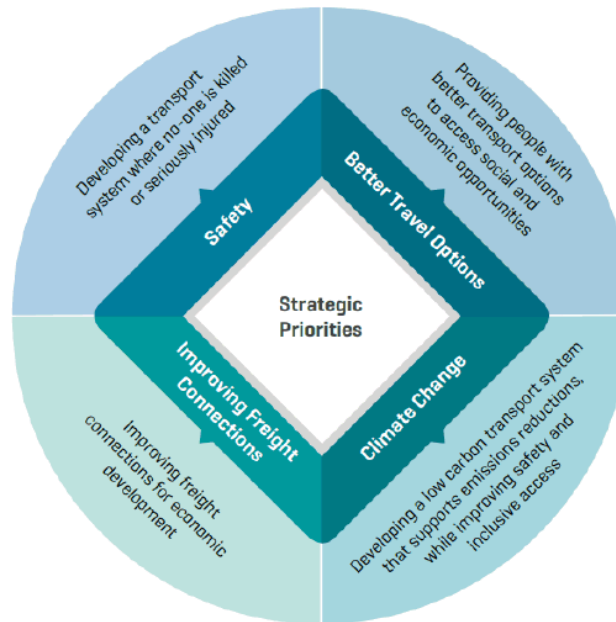


Figure 23 Government Strategic priorities

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 Framework¹¹, as shown in Figure 24.

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

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



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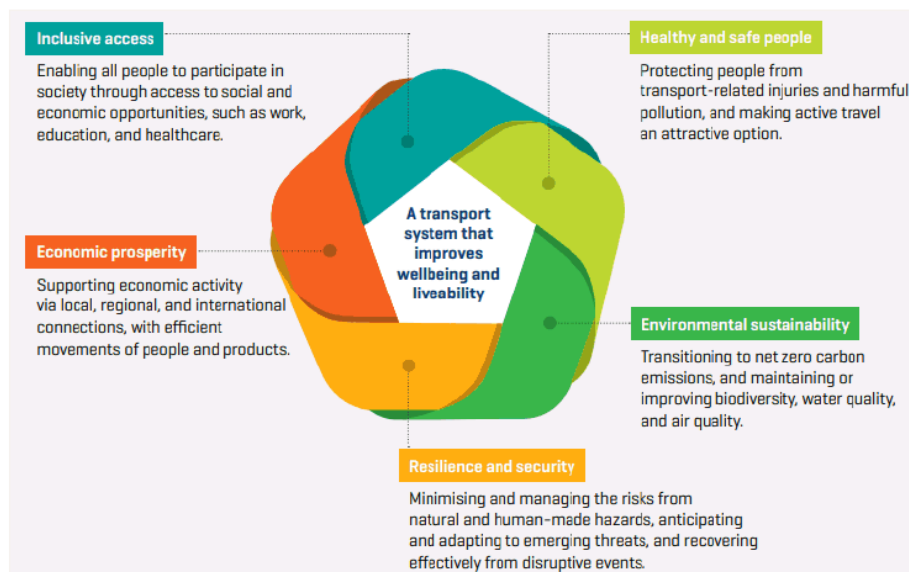


Figure 24 Transport Outcomes Framework

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 safety¹². 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.¹³

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.

¹² 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/>

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

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- We have a shared responsibility.

A.3 Road to Zero 2020-2030

Road to Zero¹⁴ 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



¹⁴ 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

Arataki¹⁵ 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 Waikato¹⁶ 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).

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

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

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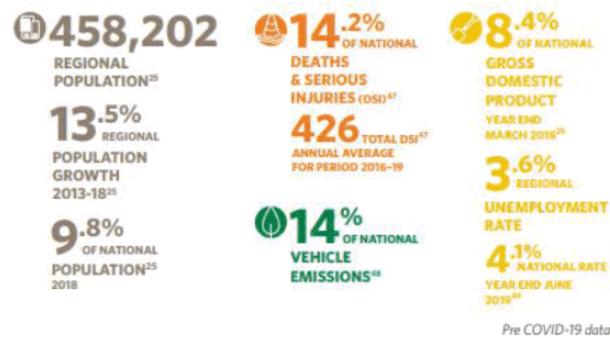
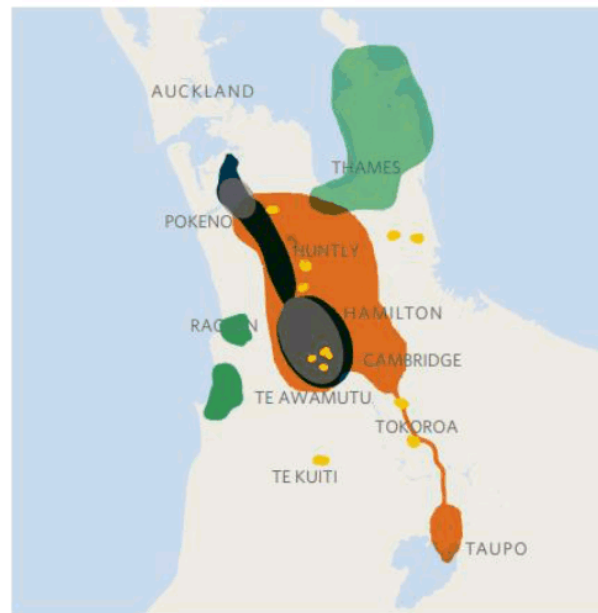


Figure 26 Regional Issues for Waikato

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 strategy¹⁷ 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.

¹⁷ 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.



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- 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

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- *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 areas¹⁸*
 - *A permanent or variable 60 km/h speed limit for schools in rural areas.¹⁹²⁰*

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.

¹⁸ 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.

¹⁹ 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

²⁰ 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).



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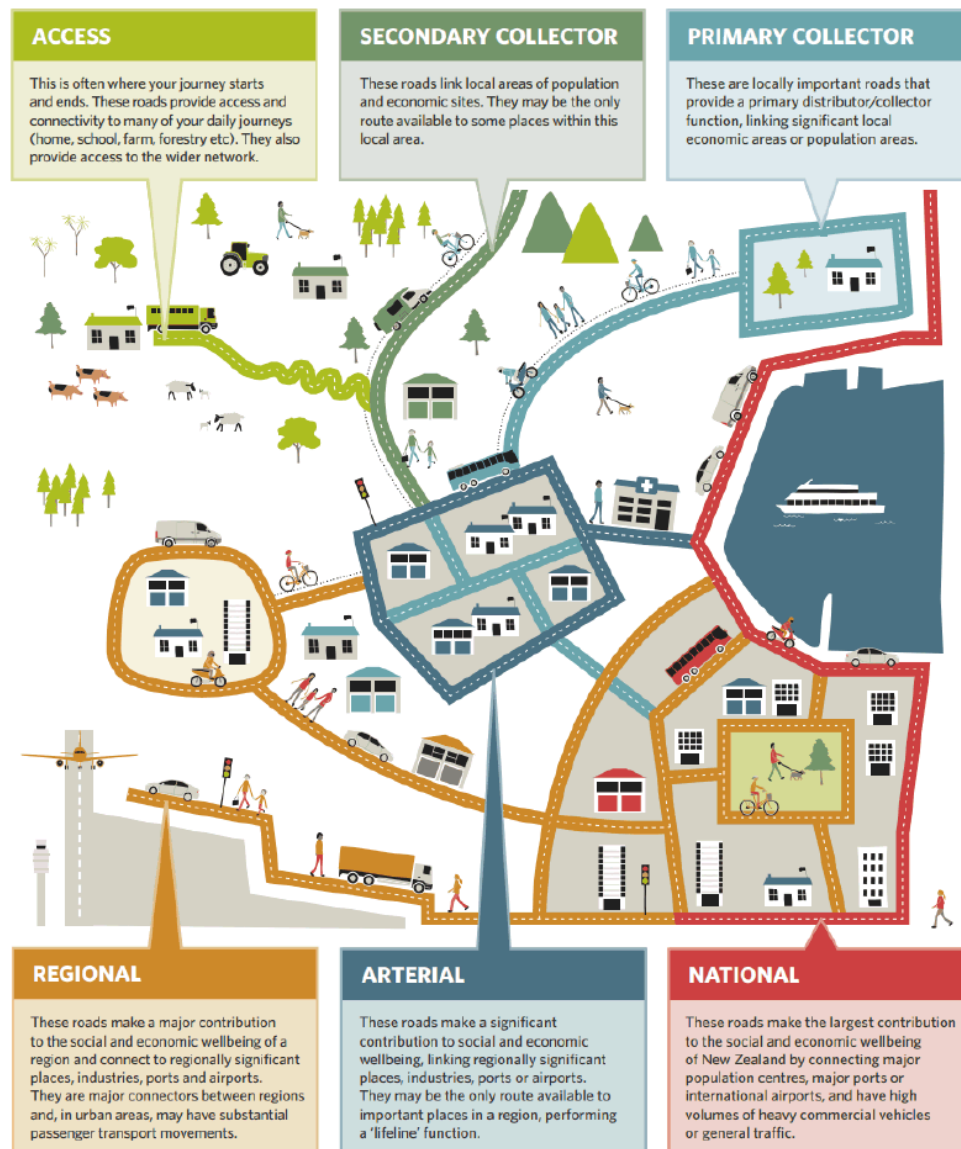


Figure 29 One Network Road Classification (ONRC)

The ONRC is being replaced by the One Network Framework (full implementation is due by 2024²¹). 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

²¹ <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.

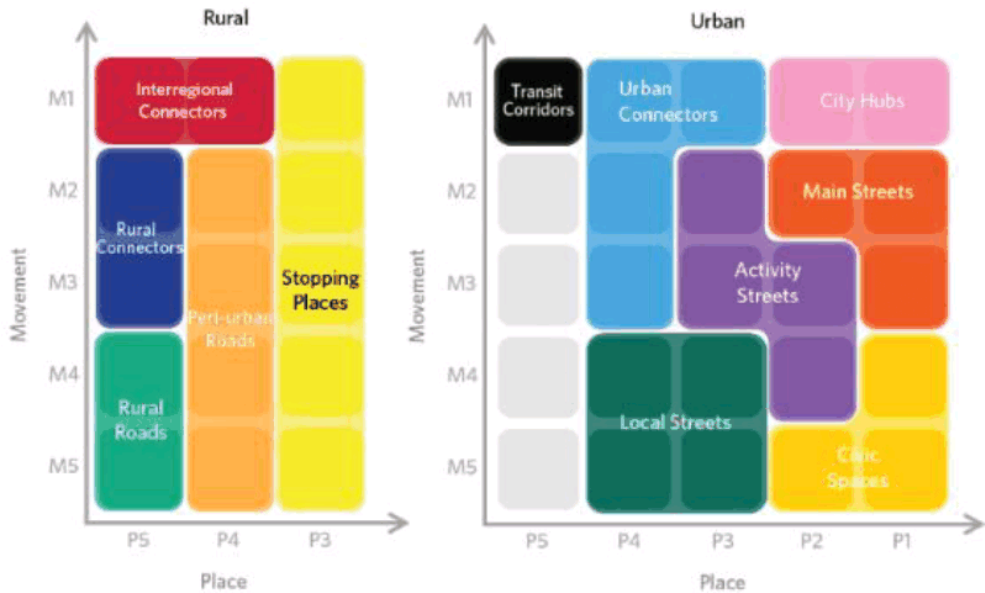


Figure 30 One Network Framework (ONF)

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).

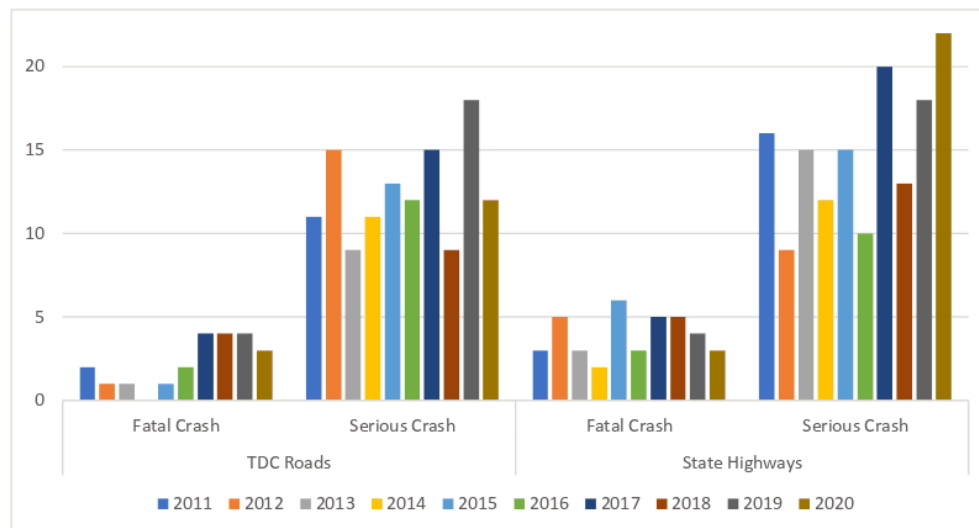


Figure B-31: Fatal and Serious crashes in Taupō District

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.

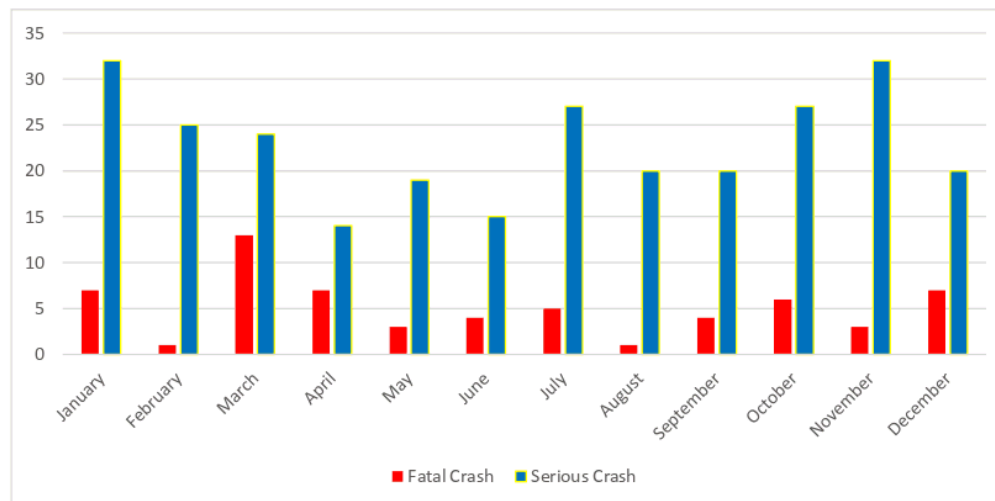


Figure B-32: Fatal and Serious crashes in Taupō District by month



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 |
| Grand Total | 22 | 27 | 8 | 9 | 11 |

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.



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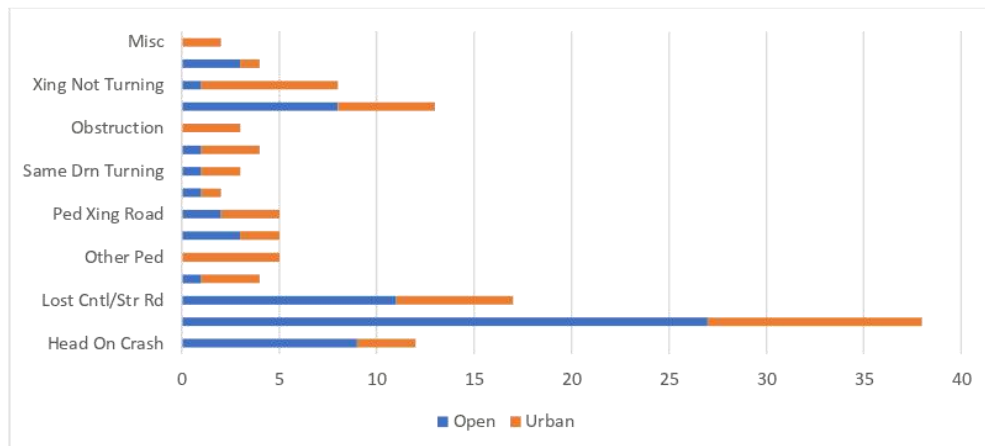


Figure B-33: Serious crashes on open and urban Taupō District Roads

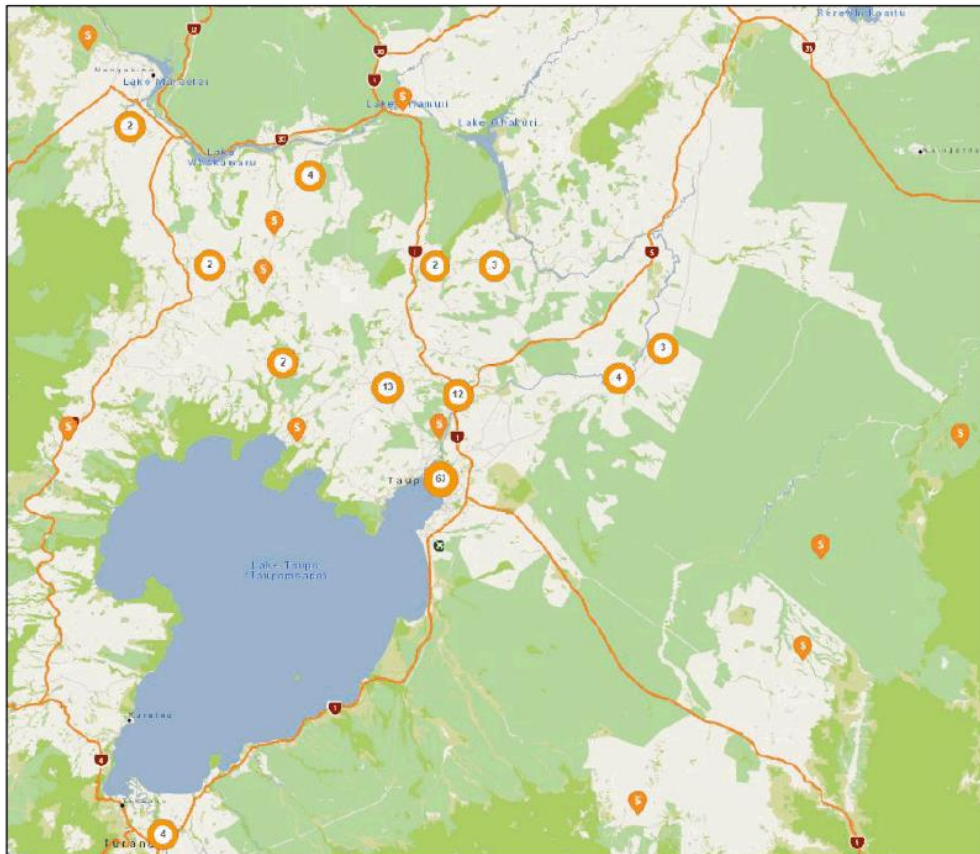


Figure B-34: Serious crashes on open and urban Taupō District Roads

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.

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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.

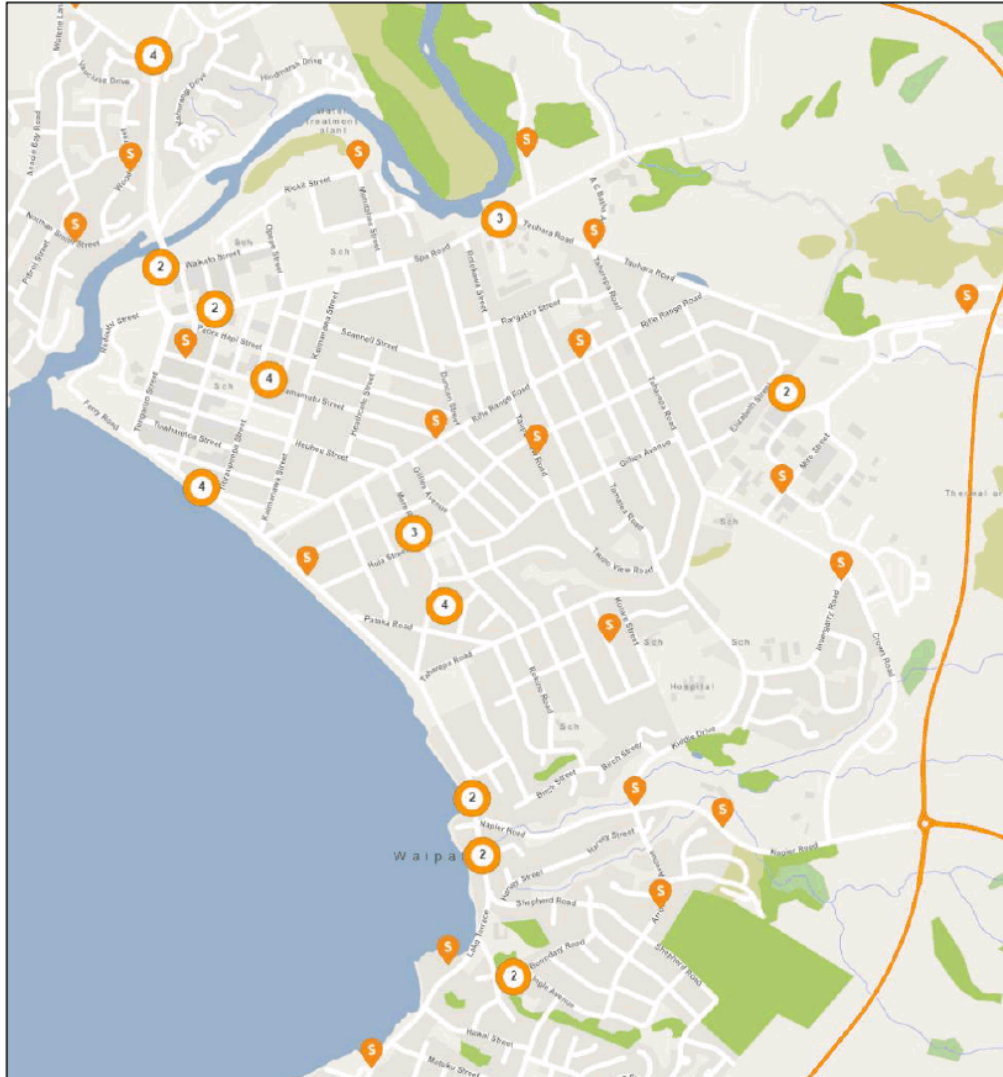


Figure B-35: Serious crashes in Central Taupō township



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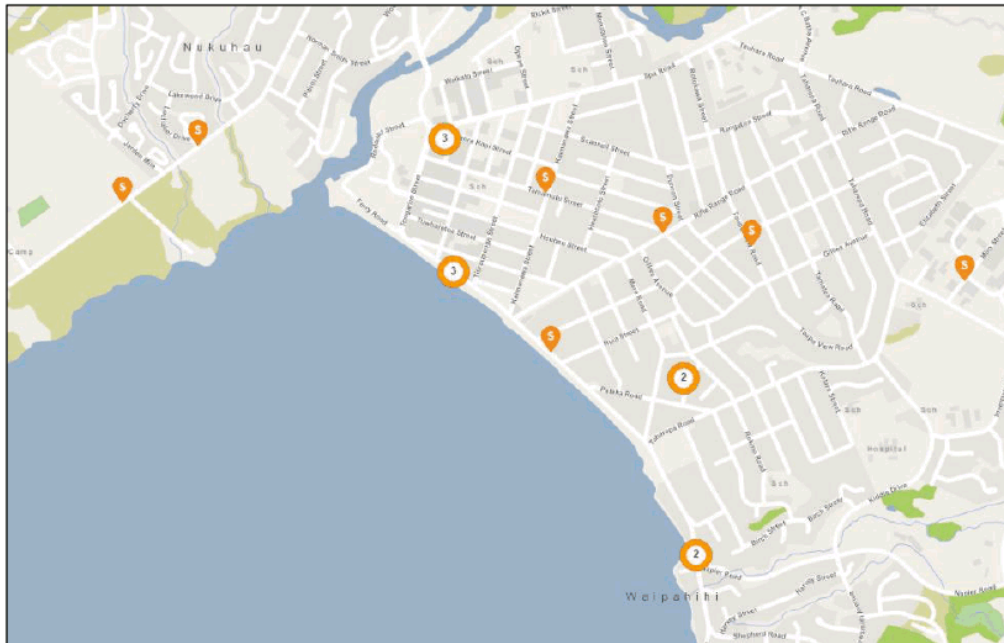


Figure B-36: Serious crashes in Central Taupō township for walking/cycling road users

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.

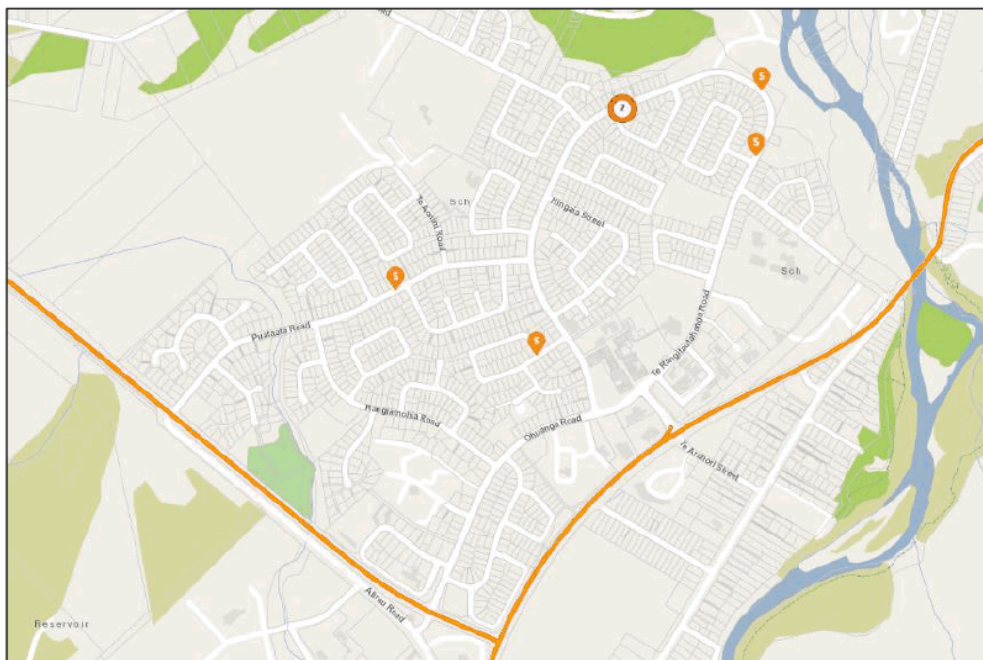


Figure B-37: Fatal and serious crashes in Tūrangi

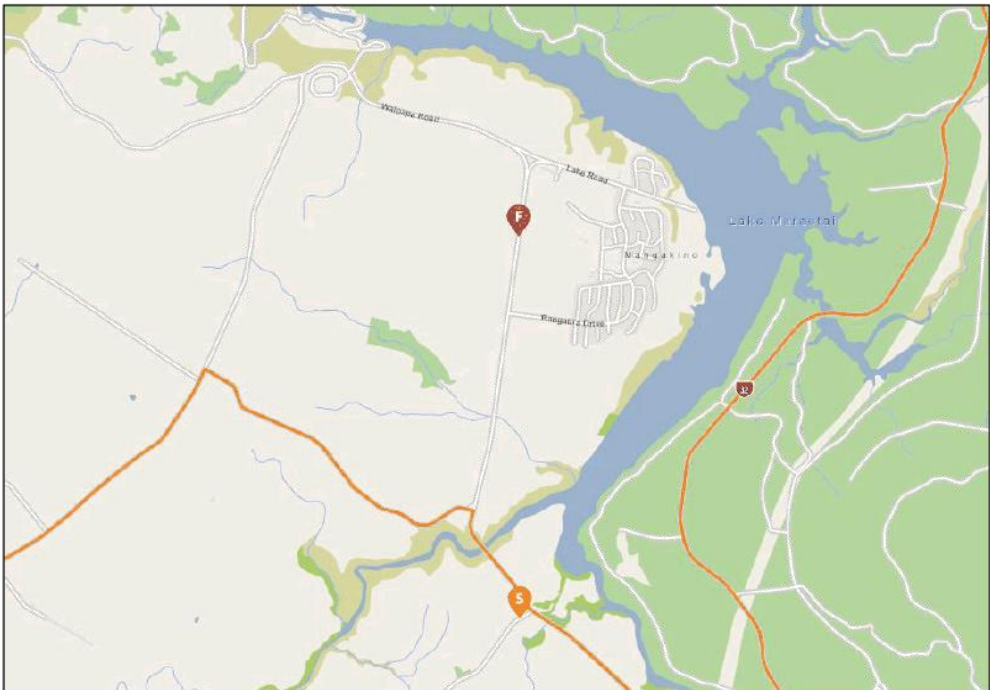


Figure B-38: Fatal and serious crashes in Mangakino

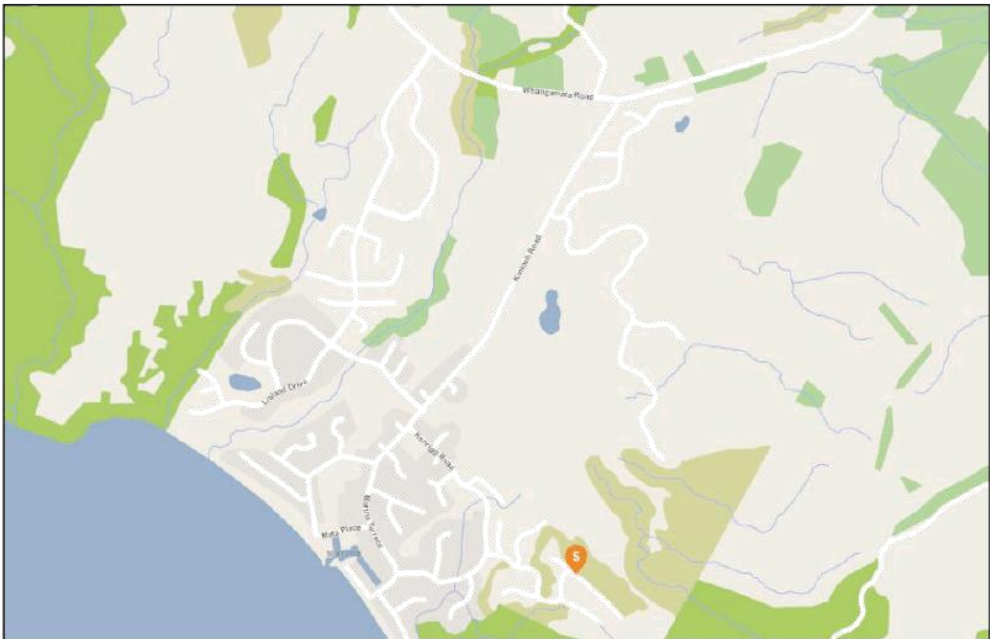


Figure B-39: Fatal and serious crashes in Kinloch



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.

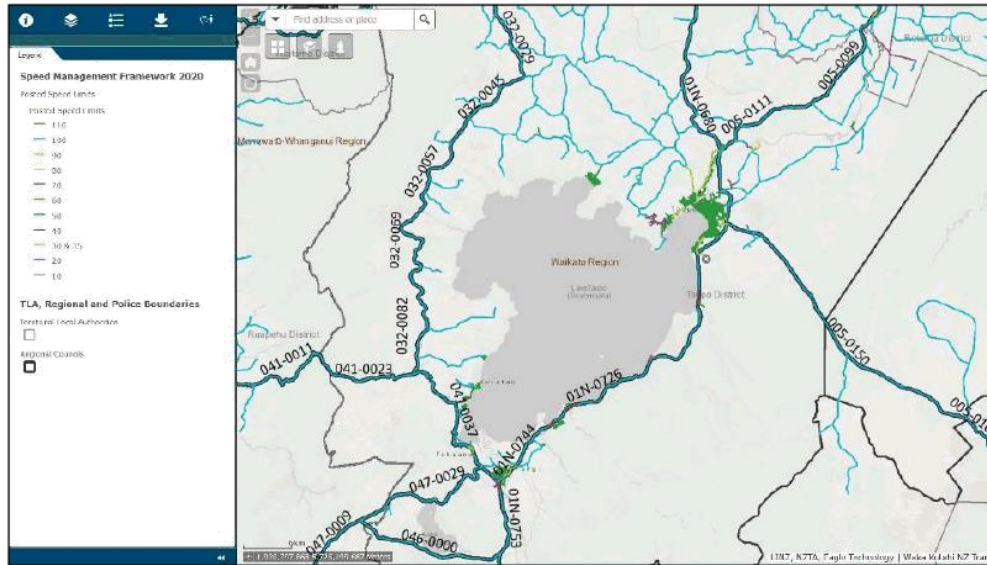


Figure C-1: Posted speed limits in Taupō District



Figure C-2: Posted speed limits in Taupō Central



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.

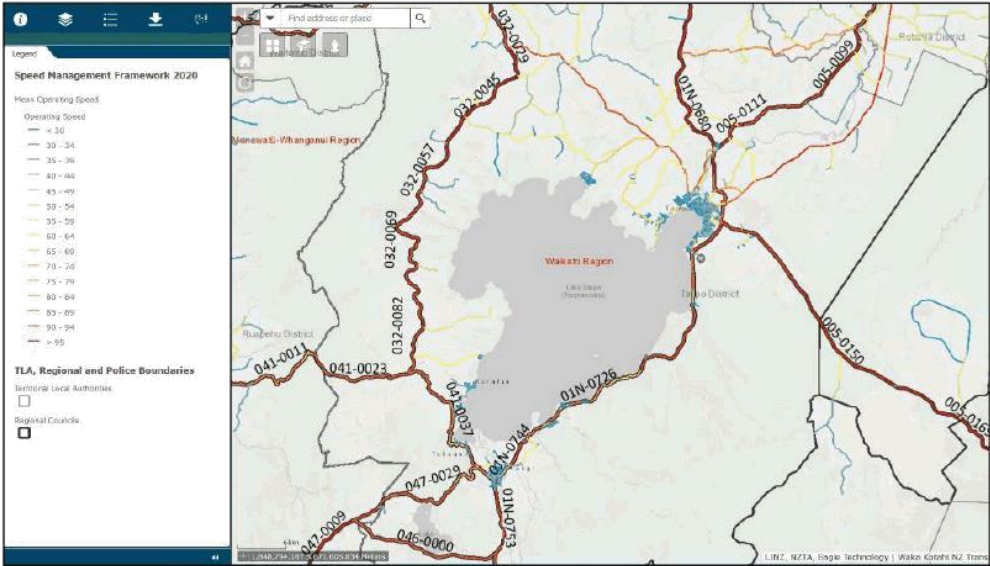


Figure C-1: Appendix Posted speed limits in Taupō District

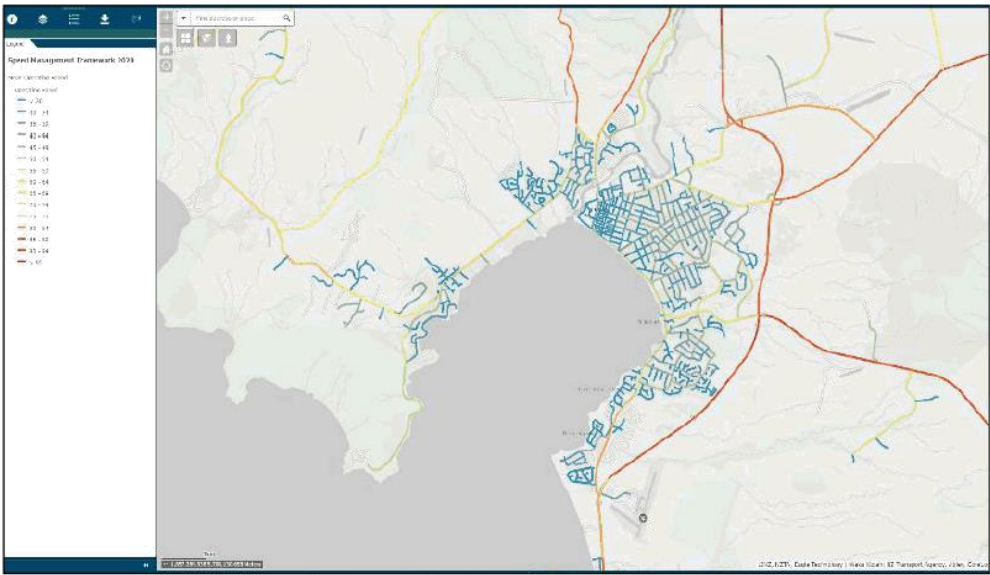


Figure C-2: Appendix Posted speed limits in Taupō Central

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).



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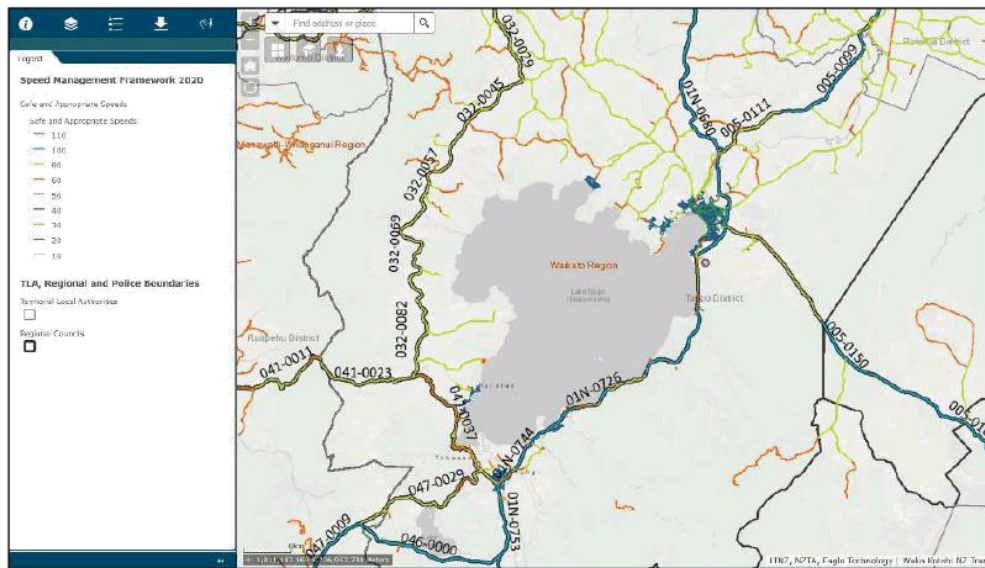


Figure C-3: Safe and Appropriate Speeds in Taupō District

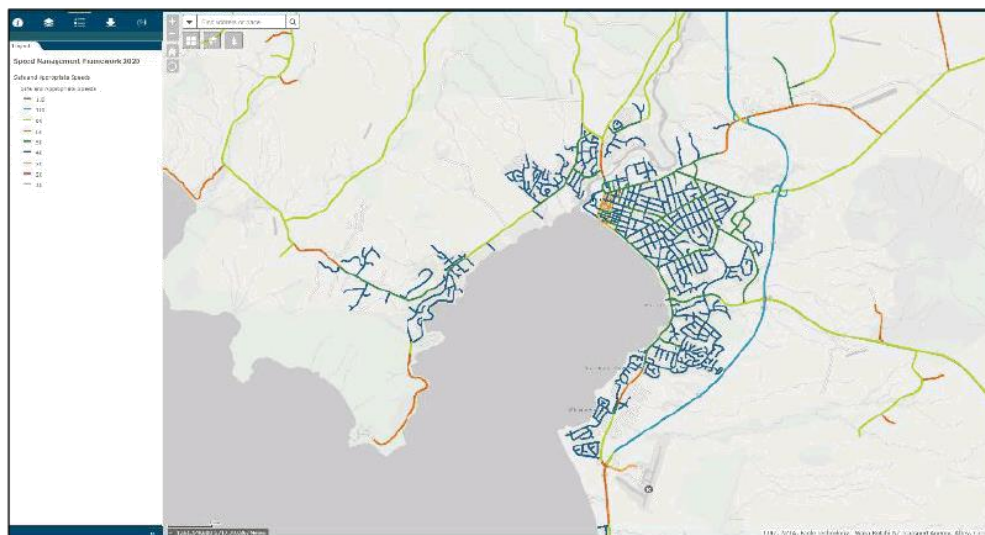


Figure C-4: Safe and Appropriate Speeds in Taupō Central

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**

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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.

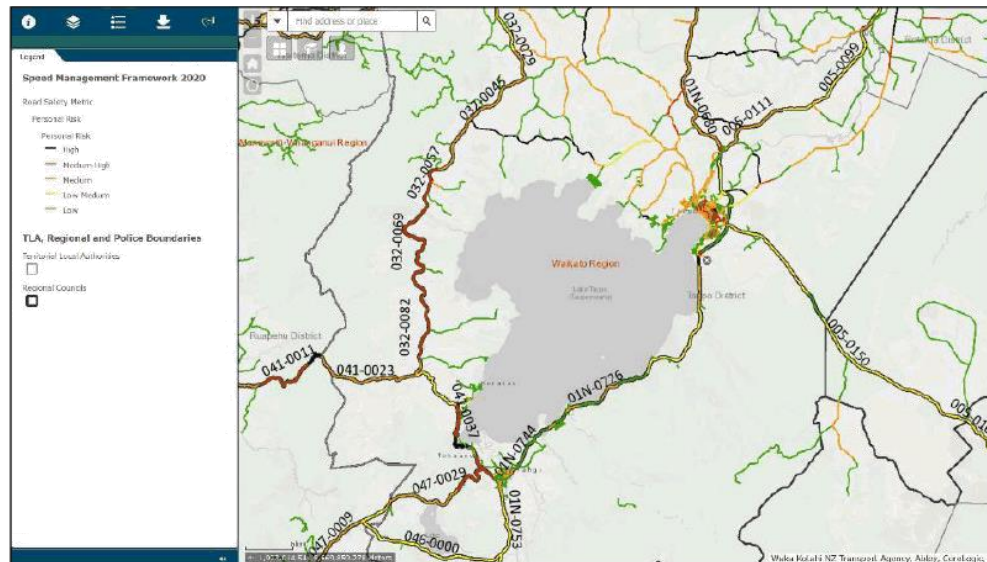


Figure C-5: Personal Risk Ratings in Taupō District

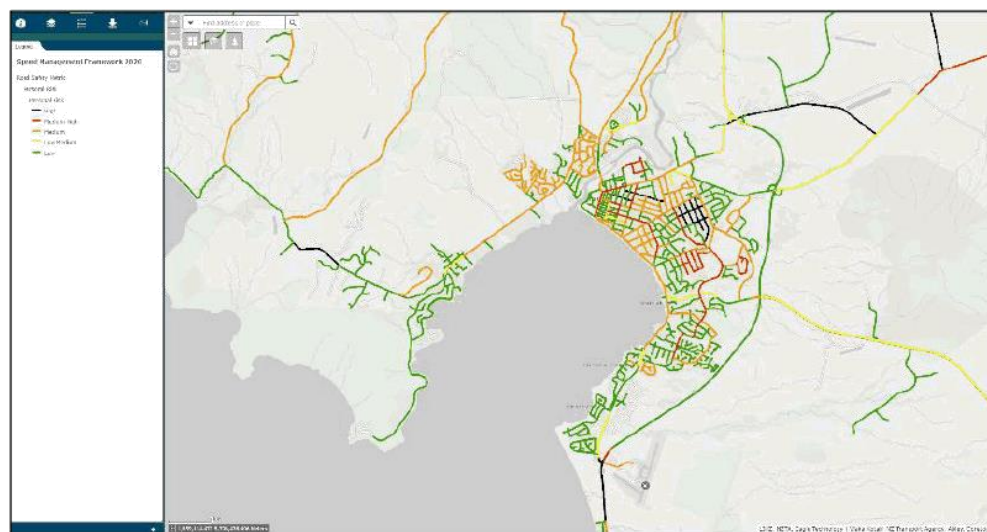


Figure C-6: Personal Risk Ratings in Taupō Central

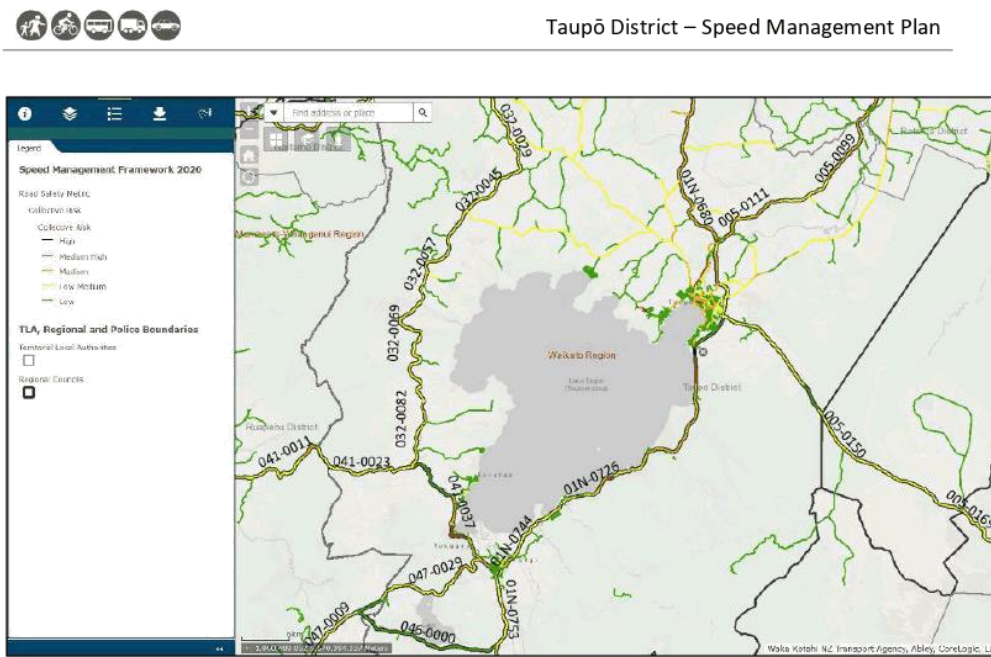


Figure C-7: Collective Risk Ratings in Taupō District

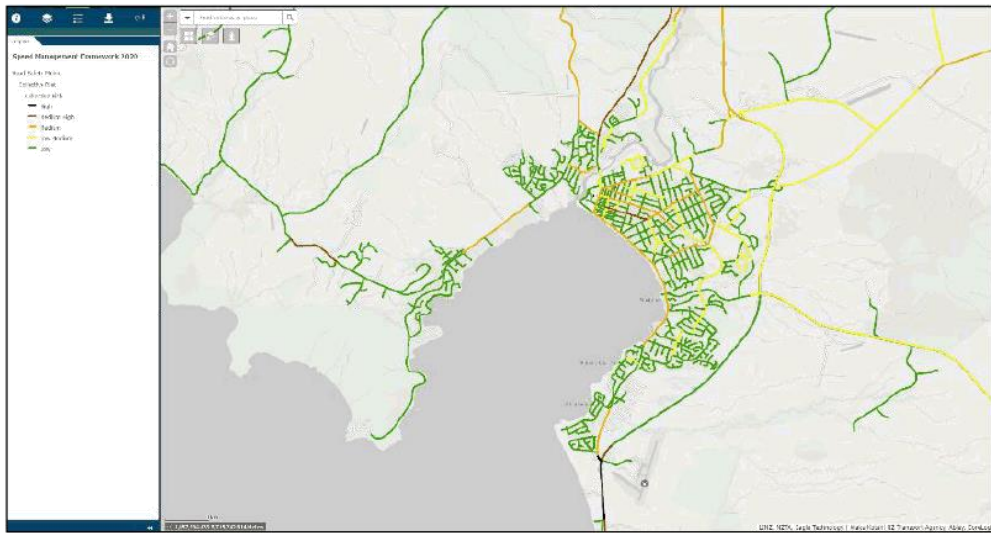


Figure C-8: Collective Risk Ratings in Taupō Central

Taupō District – Speed Management Plan

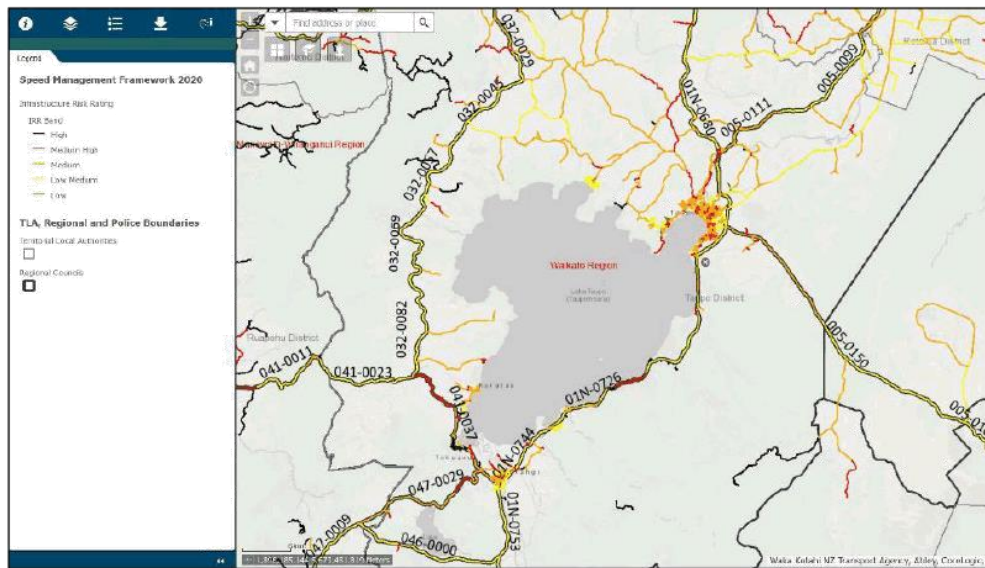


Figure C-9: IRR Ratings in Taupō District

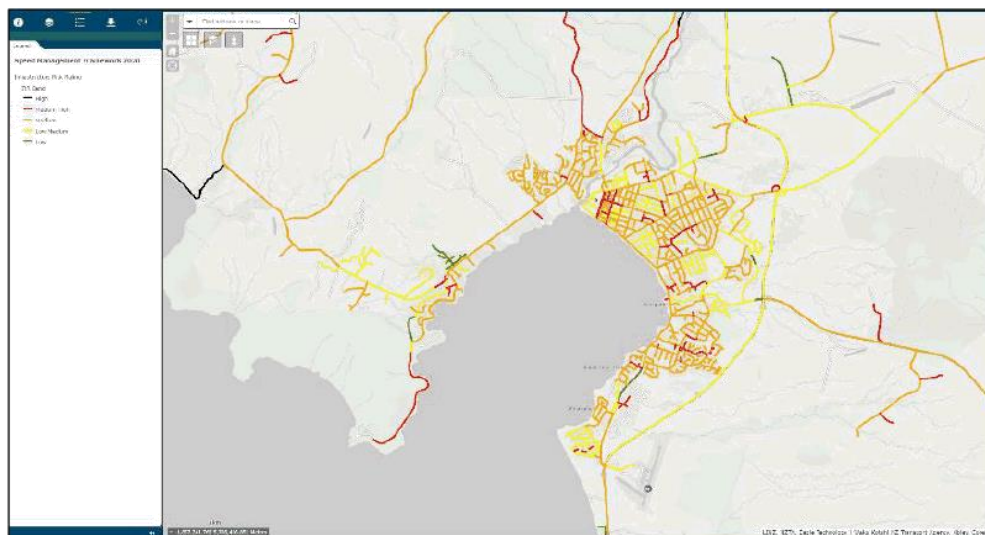


Figure C-10: IRR Ratings in Taupō Central

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 (DSIs) 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

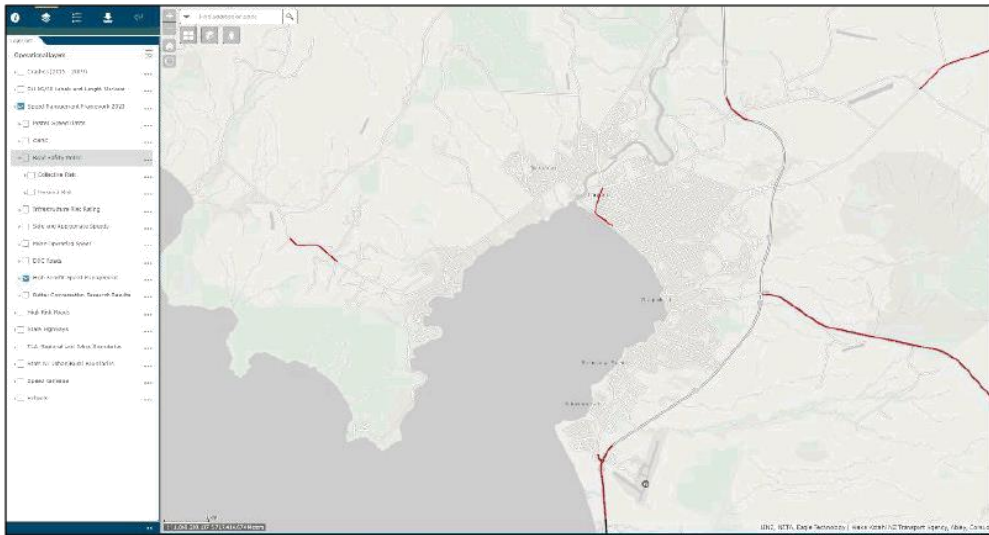


Figure C-12: Top 10% DSI Savings on the network in Taupō District

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

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

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| | | | |
|--------------------------------------------------------------|--|----|--|
| - 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 | |
| Rural Road | | | |











Appendix

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Taupō District – Speed Management Plan

| | | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| - Broadlands Road (Miro Street – SH5) |  | 65 |  |
| <ul style="list-style-type: none"> - Broadlands Road (SH5 – View Road) - Grant Road - Hitiri Road - Kaiapo Road - Katelyn Place - King Road - Mapara Road (Poihipi Road – Acacia Bay) | <ul style="list-style-type: none"> - Poihipi Road (SH32 – Tirohanga Road) - Poihipi Road (Whangamata Road – Tukairangi Road) - Tukairangi Road - Whakaroa Road - Whangamata Road (Poihipi Road – west of Kinloch) |  | 59-88  |
| - Poihipi Road (Whangamata Road – Tirohanga Road) |  | 93 |  |
| <ul style="list-style-type: none"> - Mapara Road, Acacia Bay - Acacia Heights Drive - Blue Ridge Drive - Dalmore Way - Glenloch Rise - Glen Mohr - Gillespie Place | <ul style="list-style-type: none"> - Highland Drive - Loch View Road - Lomond Grove - Morel Place - Ramsay Drive - Stewart Glen |  | 64 28-44  |
| - Blake Road, Waitahanui |  | 22 |  |
















Taupō District – Speed Management Plan



| | | | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-------|---------------------------------------------------------------------------------------|
| - Rotongaio Road, Waitahanui | |  | 36 |  |
| Taupō Township | | | | |
| - Lake Terrace (Tongariro – Ruapehu) – proposed pedestrian street | |  | 41 |  |
| - Roberts Street (west of Ruapehu Street) | |  | 20 |  |
| <ul style="list-style-type: none"> - Ferry Road - Gallagher Street - Gascoigne Street - Heuheu Street - Lake Terrace (east of Ruapehu) - Marama Arcade - Pāora Hapi Street - Redoubt Street | <ul style="list-style-type: none"> - Roberts Street (Ruapehu east) - Ruapehu Street - Starlight Arcade - Story Place - Tamamutu Street - Taniwha Street - Tongariro Street - Tūwharetoa Street |  | 20-36 |  |
| Paetiki Shopping Centre: <ul style="list-style-type: none"> - Taharepa Road - Rifle Range Road Tauhara Shopping Centre: <ul style="list-style-type: none"> - Taharepa Road | |  | 44 |  |



Taupō District – Speed Management Plan

| | | | | | |
|---------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| - Crown Road (Napier Road – south of Ashwood Ave) | | |  |  |  |
| Wharewaka | <ul style="list-style-type: none">- Harakeke Drive- Kiwai Place- Kohia Place- Kopakopa Crescent- Maru Terrace- Maunganamu Drive- Makomako Crescent- Patete Place | <ul style="list-style-type: none">- Poroporo Way- Puna Rise- Raupo Crescent- Roto Close- Tawhai Crescent- Tutu Place- Uky Way- Wai Terrace |  |  |  |
| | Taupō Surroundings | | | | |
| Waitetoko | <ul style="list-style-type: none">- Mua Street- Okahuroa Road- Otaiatua Street | <ul style="list-style-type: none">- Rawhira Road- Waitetoko Road- Wharewera Street |  |  |  |
| | <ul style="list-style-type: none">- Hinau Crescent- Kamu Crescent- Kauri Drive (NE of school)- Maire Street- Ngaio Place | <ul style="list-style-type: none">- Nikau Street- Rangiora Crescent- Rata Street- Raukawa Crescent- Tawa Place |  |  |  |
| Wairakei | | | | | |
| | <ul style="list-style-type: none">- Kauri Drive (SH5 – urban boundary) | |  |  |  |








Taupō District – Speed Management Plan



| | | | | | |
|---------|------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|---|-------|--|
| Tūrangi | Tūrangi town centre - Pihanga Road - Te Rangitautahanga Road | | | 20-38 | |
| | - Atirau Road (Southeast) - Gibson Street - Kahurau Drive - Ohuanga Road - Tukehu Street | - Ngaumu Street - Torouka Street - Manawa Street - Katarina Street | | 27-36 | |
| | - Atirau Road (Northwest) | | | 54-60 | |
| | - Hirangi Road - Te Awamate Road | | | 60 | |
| Kinloch | - Kinloch Esplanade - Marina Terrace - Mata Place - Kinloch Road | | | 28 | |
| | - Kānuka Grove - Ribbonwood Lane - Lancewood Way - Kahikatea Drive | - Pukatea Lane - Karaka Place - Okaia Drive - Sherwood Way | * | n/a | |



Taupō District – Speed Management Plan

| | | | | | |
|-----------|------------------------------|--------------------|-------------------------------------------------------------------------------------|-------|-------------------------------------------------------------------------------------|
| | - Oakdale Drive ¹ | |  | n/a |  |
| Whareroa | - Whareroa Road (East) | - Hinekapi Terrace |  | 23-42 |  |
| | - Turangitukua Terrace | - Te Amio Place | | | |
| | - Ngāti Parekaawa Drive | - Piripi Place | | | |
| | - Ani Patena Place | - Poriwira Drive | | | |
| | - Whareroa Road (West) | |  | 60 |  |
| Whakamaru | - Pokuru Road N | |  | 43 |  |

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 ²³ (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 | | 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 | | |

²³ Difference = {Safe & Appropriate Speed} – {Recommended Speed Limit}



Taupō District – Speed Management Plan

| Road Names | | Difference ²³ (km/h) | Reasoning |
|---------------------------|------------------------------------------|------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| - Kaimanawa Street | - Tautahanga Road | -10 | |
| - 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 |
| - Waipapa Road | | | Nearby Shcool |
| - Atirau Road | - Rongopai Street | | Consistent with other nearby speed change |
| - Dekker Drive | - Te Urunga Place | | |
| - Gibson Street | - Tongariro Street (near Redoubt Street) | | |

Taupō District – Speed Management Plan



| Road Names | Difference ²³ (km/h) | Reasoning |
|----------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> - Katarina Street - Manawa Street - Ngaumu Street | | |
| <ul style="list-style-type: none"> - Torouka Street - Tukehu Street - Wharetuku Street | | |
| <ul style="list-style-type: none"> - Heuheu Street - Mere Road | | Streets are to become the new arterial route |
| <ul style="list-style-type: none"> - Rifle Range Road | | |
| <ul style="list-style-type: none"> - Mapara Road (near Acacia Bay Road) - Kiddle Drive - Wakeman Road | | SAAS seems too low for environment |
| <ul style="list-style-type: none"> - Acacia Bay Road | 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"> - Ani Patena Place | | Aligns with framework |
| <ul style="list-style-type: none"> - Kepa Road | | Not in MegaMaps. Narrow, turns unsealed and short length. |
| <ul style="list-style-type: none"> - Pihanga Road | 20 | Commercial area, pedestrian courtesy crossings |
| <ul style="list-style-type: none"> - Rangitaiki School Road | | Full time 60, partly unsealed, school engagement to confirm. |
| <ul style="list-style-type: none"> - Roberts Street | | Shared street |
| <ul style="list-style-type: none"> - Aratiatia Road | | Consistent with other nearby speed change |
| <ul style="list-style-type: none"> - Hinekapi Terrace - Ngati Parekawa Drive - Piripi Place | | Reflect residential place function |
| <ul style="list-style-type: none"> - Te Amino Place - Turangitukua Terrace - Whareroa Road | | |
| <ul style="list-style-type: none"> - Lake Terrace - Taniwha Street | | Town centre strategy |
| <ul style="list-style-type: none"> - Aratiatia Road | | Good sightlines and clear zones. If View Rd is lowered to 60, then for consistency this should also be 60. |



Taupō District – Speed Management Plan

| Road Names | Difference ²³ (km/h) | Reasoning |
|------------------------|------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| - Broadlands Road | -20 | Alignment and cross section are suitable for existing speed limit to be retained (for now) |
| - Highland Drive | | 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 | -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. |
| - 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 | | Consistent with other nearby speed change |
| - Blueridge Drive | | Good sightlines, clear zones, lifestyle blocks. Requires engineering to achieve SAAS. |
| - Dalmore Way | | |
| - Gillespie Place | | |

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| Road Names | Difference ²³ (km/h) | Reasoning |
|------------------------------------------------------------------------------------------------|------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> - Glen Mohr - Glenlochy Rise | | |
| <ul style="list-style-type: none"> - Ramsay Drive - Stewart Glen | | |
| <ul style="list-style-type: none"> - Pokuru Road - Spencer Road | | 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. |
| <ul style="list-style-type: none"> - Palmer Mill Road - Waiotaka Road | | Rural local road |
| <ul style="list-style-type: none"> - Acacia Bay Road | 30 | Entry to township |
| <ul style="list-style-type: none"> - Lake Terrace | | Pedestrian street |
| <ul style="list-style-type: none"> - Riverpark Drive | | Rural residential |
| <ul style="list-style-type: none"> - Robert Street | | Shared street |
| <ul style="list-style-type: none"> - Wairakei Drive | | Urban fringe, high free flow lack of shoulders, but also lack of driveways. Engineer up and increase speed limit. |
| <ul style="list-style-type: none"> - Whakamaru Road | | More logical step change if rural adjacent link is changed to 80, consistent with township, fewer signs. |
| <ul style="list-style-type: none"> - Borderland Road - Huka Falls Road | | Urban growth, consistency with adjacent urban roads (agree with posted) |
| <ul style="list-style-type: none"> - Lake Road | -30 | Straight alignment, stay with previous consulted limit |
| <ul style="list-style-type: none"> - Lake Terrace | | To further reduce, would need engineering given the free flow speed |
| <ul style="list-style-type: none"> - Poihipi Road | | Alignment good but roadside hazards |

Note 1. SAAS – Recommended speed limit = Difference



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 \$ | \$63,600 | \$19,800 | \$18,000 | \$21,200 | \$117,000 | \$1,500 | \$30,000 | \$100,000 | \$10,000 | \$373,300 | \$20,450 | \$11,700 | \$2 |
|---------------------------------|------------|-------------|------------------------|----------------|--------------------|--------------------|--------------------------|-----------------------|-------------------|----------------|-----------------------|-----------------------|------------------|----------------------|--------------------|---------|
| | | | Rate: | \$300 | \$300 | \$1,000 | \$100 | \$9,000 | \$500 | \$10,000 | \$50,000 | \$20,000 | | \$50 | \$900 | \$1 |
| Road / Area | Locality | Length (km) | Treatments | Basic Spd Sign | Repeater Spd Signs | Threshold Spd Sign | Addit'nal Paint Markings | Electronic School VMS | Static School VMS | Ped'n Crossing | Traf. calm urban (km) | Traf. calm rural (km) | TOTAL CAP. COSTS | Sign/Mrks Maint / yr | VMS Maint per year | Traf. M |
| Hilltop School | Taupō | | 50 > 30 | 8 | | | 8 | | | | | | \$3,200 | 16 | | |
| Lake Taupō Christian School | Taupō | | 50 > 30VMS | 2 | | | 2 | 2 | | | | | \$18,800 | 4 | 2 | |
| Mangakino Area School | Mangakino | | 50 > 30 | 6 | | | 6 | | | | | | \$2,400 | 12 | | |
| Mountview School | Taupō | | 50 > 30 | 6 | | | 6 | | | 1 | | | \$12,400 | 12 | | |
| *Rangitaiki School | Rangitaiki | | 100 > 30 | 2 | | | 2 | | | | | | \$800 | 4 | | |
| St Patrick's Catholic School | Taupō | | 50 > 30VMS | 3 | | | 3 | 2 | 1 | | | | \$19,700 | 7 | 2 | |
| Tauhara College | Taupō | | 50 > 30 | 4 | | | 4 | | | | | | \$1,600 | 8 | | |
| Tauhara Primary School | Taupō | | 50 > 30VMS | 2 | | | 2 | 3 | 1 | | | | \$28,300 | 5 | 3 | |
| Taupō Intermediate | Taupō | | 50 > 30 | 4 | | | 4 | | | | | | \$1,600 | 8 | | |
| | | | 50 > 30, 40VMS > 30VMS | 3 | | | 3 | | 1 | | | | \$1,700 | 7 | | |
| Taupō-nui-a-Tia College | Taupō | | 50 > 30VMS | 2 | | | 2 | 2 | | | | | \$18,800 | 4 | 2 | |
| Te Kura o Hirangi | Tūrangi | | 50 > 30 | 2 | | | 2 | | | | 0.5 | | \$25,800 | 4 | | |
| TKKM o Whakarewa / ADDI Academy | Taupō | | 50 > 30 | 6 | | | 6 | | | | | | \$2,400 | 12 | | |
| | | | 100 > 80, 30VMS | 4 | | | 4 | 2 | | | | 0.5 | \$29,600 | 8 | 2 | |
| *Tirohanga School | Tirohanga | 0.5 | 30VMS | 4 | | | 4 | 2 | | | | | \$3,200 | 16 | | |
| Tongariro School | Tūrangi | | 50 > 30 | 8 | | | 8 | | | | | | \$2,400 | 12 | | |
| Waipahihi School | Taupō | | 50 > 30 | 6 | | | 6 | | | | | | \$2,400 | 12 | | |
| Wairakei School | Wairakei | | 50 > 30 | 6 | | | 6 | | | | | | \$2,400 | 12 | | |
| *Whakamaru School + Pokuru Rd | Whakamaru | | 70 > 60, 30VMS | 8 | | | 8 | 2 | | | | | \$21,200 | 16 | 2 | |
| Broadlands Rd (Miro St – SH5) | Taupō | 0.5 | 100 > 50 | 2 | | 2 | 2 | | | | | | \$2,800 | 6 | | |
| Broadlands Rd (SH5 – View Rd) | Rural | 4.7 | 100 > 80 | 6 | 4 | | 6 | | | | | | \$3,600 | 12 | | |



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Taupō Speed Mngmt Costs

| Taupō Speed Mngmt Costs | | | Total \$ | \$63,600 | \$19,800 | \$18,000 | \$21,200 | \$117,000 | \$1,500 | \$30,000 | \$100,000 | \$10,000 | \$373,300 | \$20,450 | \$11,700 | \$2 |
|--------------------------------------|------------|-------------|--------------|----------------|--------------------|--------------------|--------------------------|-----------------------|-------------------|----------------|-----------------------|-----------------------|------------------|-----------------------|--------------------|-------------|
| | | | Rate: | \$300 | \$300 | \$1,000 | \$100 | \$9,000 | \$500 | \$10,000 | \$50,000 | \$20,000 | | \$50 | \$900 | \$1 |
| Road / Area | Locality | Length (km) | Treatments | Basic Spd Sign | Repeater Spd Signs | Threshold Spd Sign | Addit'nal Paint Markings | Electronic School VMS | Static School VMS | Ped'n Crossing | Traf. calm urban (km) | Traf. calm rural (km) | TOTAL CAP. COSTS | Sign/Mrkgs Maint / yr | VMS Maint per year | Traf. Maint |
| Mapara Rd (Poihipi Rd – Acacia Bay) | Rural | 11.5 | 100 > 80 | 4 | 10 | | 4 | | | | | | \$4,600 | 8 | | |
| Poihipi Rd (SH32 – Tirohanga Rd) | Rural | 9.4 | 100 > 80 | 12 | 8 | | 12 | | | | | | \$7,200 | 24 | | |
| Poihipi Rd (Whangamata - Tukairangi) | Rural | 5.6 | 100 > 80 | 6 | 4 | | 6 | | | | | | \$3,600 | 12 | | |
| Tukairangi Rd | Rural | 9.7 | 100 > 80 | 4 | 8 | | 4 | | | | | | \$4,000 | 8 | | |
| Whangamata Rd (Poihipi Rd – Kinloch) | Rural | 8.8 | 100 > 80 | 8 | 8 | | 8 | | | | | | \$5,600 | 16 | | |
| Poihipi Rd (Whangamata – Tirohanga) | Rural | 13.2 | 100 > 90 | 6 | 12 | | 6 | | | | | | \$6,000 | 12 | | |
| Mapara Rd, Acacia Bay + others | Acacia Bay | 2.8 | 70 > 60 | 4 | 2 | | 4 | | | | | | \$2,200 | 8 | | |
| Blake Rd, Waitahanui | Taupō | | 50 > 40 | 2 | | | 2 | | | | | | \$800 | 4 | | |
| Rotongaio Rd, Waitahanui | Taupō | 0.5 | 100 > 60 | 2 | | | 2 | | | | | | \$800 | 4 | | |
| Lake Terrace (Tongariro – Ruapehu) | Taupō | | 50 > ped | | | | | | | | | | | | | |
| Roberts St (west of Ruapehu St) | Taupō | | 50 > 10 | | | | | | | | | | | | | |
| Taupo Town Centre | Taupō | | 50 > 30 | | | | | | | | | | | | | |
| Paetiki Shopping Centre | Taupō | | 50 > 30 | 4 | | 4 | 4 | | | 1 | | | \$15,600 | 12 | | |
| Tauhara Shopping Centre | Taupō | | 50 > 30 | 2 | | 2 | 2 | | | 1 | | | \$12,800 | 6 | | |
| Lake Terrace (SH1 to 50km/h) | Taupō | 2.3 | 80 > 60 | 14 | 2 | | 14 | | | | | | | | | |
| Crown Rd (Napier Rd - Ashwood Ave) | Taupō | 0.8 | 80 > 60 | 4 | | | 4 | | | | | | | | | |
| Ngāroto Estate | Wharewaka | | 50 > 40 | 2 | | | 2 | | | | | | \$800 | 4 | | |
| Waitetoko | Waitetoko | | 50 > 40 | 2 | | 2 | 2 | | | | | | \$2,800 | 6 | | |
| | | | 50 > 40, 100 | | | | | | | | | | | | | |
| Wairakei | Wairakei | | > 60 | 4 | 8 | | 4 | | | | 1.5 | | \$79,000 | 8 | | |
| Tūrangi town centre | Tūrangi | | 50 > 30 | 6 | | 6 | 6 | | | | | | \$8,400 | 18 | | |
| | | | 70 > 60, 100 | | | | | | | | | | | | | |
| Tūrangi industrial area | Tūrangi | | > 60 | 8 | | | 8 | | | | | | \$3,200 | 16 | | |
| Hirangi Rd + others | Tūrangi | | 100 > 80 | 4 | | | 4 | | | | | | \$1,600 | 8 | | |

Appendix

G-39

VIASTRADA



Taupō District – Speed Management Plan

Taupō Speed Mngmt Costs

| Taupo Speed Mngmt Costs | | | Total \$ | \$63,600 | \$19,800 | \$18,000 | \$21,200 | \$117,000 | \$1,500 | \$30,000 | \$100,000 | \$10,000 | \$373,300 | \$20,450 | \$11,700 | \$2 |
|-------------------------|----------|--------------------------|-----------|--------------|-----------|----------------|--------------|------------|----------------|-----------------|-----------------|------------|---------------|----------------|----------|-----|
| | | | Rate: | \$300 | \$300 | \$1,000 | \$100 | \$9,000 | \$500 | \$10,000 | \$50,000 | \$20,000 | | \$50 | \$900 | \$1 |
| Road / Area | Locality | Length | Basic Spd | Repeater | Threshold | Addit'nal | Electroni | Static | | Traf. | Traf. | TOTAL | Sign/Mrk | VMS | Traf | |
| | | (km) | Sign | Spd Signs | Spd Sign | Paint Markings | c School VMS | School VMS | Ped'n Crossing | calm urban (km) | calm rural (km) | CAP. COSTS | gs Maint / yr | Maint per year | Maint | |
| | | Kinloch Esplanade | Kinloch | 50 > 30 | 8 | | 8 | | | | | | \$3,200 | 16 | | |
| | | Kinloch new subdivisions | Kinloch | 50 > 40 | 14 | | 14 | | | | | | \$5,600 | 28 | | |
| | | | | 50 > 40, 100 | | | | | | | | | | | | |
| Whareroa village | Whareroa | > 60 | 2 | | 2 | 2 | | | | | | \$2,800 | 6 | | | |