He pūrongo whakahaumaru huarahi mō ngā iwi Māori Summary of the Māori road safety outcomes report

June 2021

WAKA KOTAHI
NZ TRANSPORT AGENCY

ROAD TO ZERO
TE ARA KI TE ORA

New Zealand Government

Waka Kotahi NZ Transport Agency (Waka Kotahi) and our central government road safety partners (**Ngā Pirihimana O Aotearoa** NZ Police and **Te Manatū Waka** Ministry of Transport) are on a journey to better understand road safety outcomes for Māori. We are undertaking work within Road to Zero: New Zealand's Road Safety Strategy 2020-2030, to co-design and implement meaningful actions that will improve the safety and wellbeing of Māori communities.

This report summarises the findings of an in-depth research piece, conducted by Waka Kotahi, that provides strong grounding for future work.

The literature, research and data review used in the report indicated that Māori are over-represented in death and serious injuries (DSIs) from road crashes.

Background to Road to Zero

We have a vision for an Aotearoa New Zealand where everyone makes it to their destination, whether that's going to work, heading home or visiting friends and whanau. Sadly, since 2013 the number of people dying or being seriously injured on Aotearoa New Zealand roads has increased and DSI rates for Māori increased faster than for non-Māori from 2014 to 2017.

Previous research estimated that overall, road traffic mortality rates are between 60% and 200% higher for Māori compared to non-Māori.

The Government has delivered the **Road to Zero 2030** strategy which commits Aotearoa to Vision Zero: ***Our vision is a New Zealand where no one is killed or seriously injured on our roads.***

The strategy calls out that more work is needed to understand the relatively high levels of road trauma for Māori. We are working with our Road to Zero partners to commence this work and will be partnering with Māori to co-design activities that reduce road trauma and support Māori.

This work is being undertaken over three phases, each building on the last. This report summarises the findings of the first phase and the work identified for subsequent phases. This is a baseline report and an important step towards tracking progress against our vision of an Aotearoa New Zealand where no one is killed or seriously injured on our roads.

Historical context

Efforts to improve Māori road safety outcomes cannot be undertaken without acknowledging historical trauma and disparities. These disparities now involve a complex mix of socioeconomic and lifestyle factors, difficulties accessing healthcare, structural barriers and systemic racism.

However, over recent decades, a resurgence of cultural revitalisation, demand for equitable outcomes and an increased mandate for greater Māori autonomy has highlighted the resilience of Māori to contest, adapt and evolve their endeavours to achieve better outcomes. This provides a strong foundation for us to work from, in partnership with Māori.

Identifying Māori

While collating and analysing information for this work, we have found differences in how Māori ethnicity is identified across data sets.

Whakapapa is central to Māori notions of identity. Tatauranga Aotearoa (Statistics New Zealand) define ethnicity as the ethnic group that people identify with or feel they belong to. It is measured by cultural affiliation as opposed to race, ancestry, nationality or citizenship. This information is self-reported through the census.

The report uses data from the Crash Analysis System (CAS) which captures crash data gathered at the scene by Ngā Pirihimana o Aotearoa. Ethnicity information is reliant on Police observation and may not be the same as how people have identified themselves in other datasets. These limitations and assumptions as a result of how the data was collected should be taken into account when considering the findings and analysis based on CAS data in the report.

For this report we have also accessed other datasets to supplement CAS information and to help us understand Māori representation in Aotearoa. Te Puni Kōkiri data shows that Māori represented 15.4% of the population in Aotearoa in 2017. 86% of Māori were living in Te Ika a Māui (North Island) and, in line with the overall population distribution of Aotearoa, the largest concentration lived in Tāmaki Makaurau (Auckland).

Improving road safety outcomes with Māori

He Pūrongo Whakahaumaru Hurahi Mō Ngā Iwi Māori has grown from a key priority of the Road to Zero strategy; to support initiatives to improve Māori road safety.

While Waka Kotahi acknowledges and supports the value of a kaupapa Māori approach, we are in the very early stages of strengthening our capability and capacity in tikanga Māori. The decision was made to use the resources and capability currently existing within Waka Kotahi to progress Phase one of the project because of the priority given to improve our understanding of Māori road safety outcomes.

As such, an iterative approach is being taken for how this work develops, framed into three phases:

- **Phase one:** Investigate and analyse existing research and information, as well as interrogate various data sets to identify Safe System failures for Māori.
- **Phase two:** Engage and build relationships with Māori to better understand context, undertake further research and co-design culturally relevant Safe System interventions.
- **Phase three:** Support delivery of interventions designed in Phase two.

Phase one

The analysis and research outlined in this summary is an outcome of Phase one.

In Road to Zero, we acknowledge that people are fragile and, at times, make mistakes that can lead to crashes. Road to Zero is centred around the 'Safe System' approach which puts layers of protection around people in the form of safe roads, vehicles and speeds, in order to prevent deaths and serious injuries when mistakes do happen.

Safe System principles:

1. People make mistakes
2. People are vulnerable
3. We need to share responsibility
4. We need to strengthen all parts of the system.

Phase one involved collating and analysing existing literature, datasets and research to help us develop our understanding of road safety outcomes for Māori and understand what 'Safe System' failings have occurred.

Specific actions we have undertaken have included:

- exploring historic and current demographic, social and economic contexts for Māori
- investigating crash and injury data for Māori and non-Māori from several sources
- considering transport system factors such as access, infrastructure, vehicles, speed and user behaviour
- developing a snapshot of current and planned Māori road safety initiatives across Waka Kotahi.

Phase two

We are currently establishing the Phase two work programme. This phase will involve building relationships and partnering with Māori to undertake further research and/or co-design culturally relevant Safe System interventions.

Waka Kotahi cannot do this alone. We have partnered with Ngā Pirihimana o Aotearoa and Te Manatū Waka, our Road to Zero partners, to work on this project with us. Together we will connect and partner with Iwi Māori and central and local government stakeholders to:

- build relationships and discuss the findings of Phase one,
- identify and undertake further analysis and research as required and/or,
- co-design Māori-centric Safe System interventions to address specific issues.

Phase three

Phase three is dependent on the agreed outcomes of the first two phases but we envisage this will include supporting the delivery of initiatives co-designed in Phase two.

Ongoing research, reporting and monitoring will be required to ensure any interventions are effective and remain relevant. The Phase one report provides us with a baseline against which we can assess progress towards improving road safety outcomes with Māori.

No timeframes have been outlined for the commencement of Phase three yet.

Phase one

Contextual considerations

The geographic distribution, age distribution, and deprivation status of Māori are important contextual considerations for Māori road safety outcomes. A high proportion of Māori live in the most populated parts of the country (e.g. Auckland, Waikato and Bay of Plenty) and so general road safety improvements in these areas will reduce risk for Māori.

The Māori population is also relatively young, hence road safety initiatives that focus on youth are also likely to yield benefits for Māori.

The median age of Māori is projected to grow from 25.9years in 2017 to an estimated 27.9 years in 2038.

While initially focusing on the implications of deprivation on road safety is likely to be beneficial to Māori, addressing factors such as vehicle safety, occupant numbers, longer trips on remote rural roads (to get to employment opportunities), and systemic barriers to safe road use, and education pathways are likely to improve road safety outcomes for Māori.

Similarly, addressing personal road safety risk factors, such as driving after consuming alcohol, medications or drugs and not wearing a seatbelt, will have beneficial outcomes. It is useful to understand these factors as part of a system, and how the various parts of the system are leading to high severity crash outcomes for Māori.

Road trauma findings

The literature, research and data review found that Māori are overrepresented in death and serious injuries, as a result of road crashes. Trends suggest this is increasing.

Most of the data used in the report was based on CAS data from 2013-2017. The goal was simply to describe that data as it stands, and care should be taken for any interpretation.

The focus is on understanding the contributing system factors, rather than looking for fault. As mentioned in the report, this data has numerous limitations, including incomplete records, incomplete ethnicity information, and a focus on driver data.

While the data analysis addresses some of the data limitations identified in the literature review, there are further gaps and limitations to be addressed.

Some key findings, broken down by demographics and location follow:

- Regardless of ethnicity, we see a disproportionate number of DSIs for men aged between 15 to 29 years.
- While the rate of DSI for non-Māori decreases to the average rate for those aged 30 years or older, the rate of DSI for Māori remains above average through to 64 years.
- Tamariki Māori are more likely to be killed or seriously injured in crashes than non-Māori children.
- In most levels of area deprivation, Māori DSIs are 8-13% higher than the Māori proportion of population in the area.
- The three regions with the highest proportions of Māori DSIs, in relation to the proportion of the population, are Gisborne, Northland and Bay of Plenty.
- When comparing the numbers of DSIs across regions, Auckland, Waikato and Northland combined contributed half of all Māori DSIs for 2013-2017.
- The location of DSIs in relation to rural roads (defined by 80-110kph speed limits) and urban roads (defined by 5-70kph speed limits) show no significant differences for Māori compared to non-Māori.
- The most common types of movement resulting in DSI crashes are the same for Māori and non-Māori, with loss of control on a bend involved in the greatest number of DSIs, followed by loss of control on a straight road, head-on crash and pedestrian crossing a road. However, a third more Māori DSIs occur as a result of loss of control at bend movements than non-Māori.
- There are differences between the times and days of the week when DSIs occur for Māori and non-Māori but overall, the 'peaks' and 'troughs' are not as pronounced for Māori compared to non-Māori. The exception to this is that Saturday nights between 6pm and midnight show high proportions of DSIs for Māori compared to non-Māori.
- There are no significant differences for Māori and non-Māori involved in crashes in a 1-star or 2-star safety-rated vehicle. A notable difference is that the number of occupants in a 1- or 2-star safety-rated vehicle for Māori is generally higher.

Overall, the average rate of DSI per 100,000 people in Aotearoa, for the 2013 to 2017 period, was 45.

- Driving unlicensed is often a factor in road-crashes involving Māori, which the literature has attributed to several factors including living in high deprivation or rural areas and negative experiences of the driver licensing system.
- Wearing an appropriate seatbelt or restraint increases the chance of surviving a crash by 40%. Māori not wearing a seatbelt or restraint are overrepresented in DSI crashes, with tamariki Māori more likely to be restrained with a seatbelt than appropriate child restraints.
- Māori drivers who were killed or seriously injured in a crash had higher (confirmed) rates of alcohol above the legal limit compared to non-Māori drivers.

Current and planned initiatives

Waka Kotahi delivers a range of programmes, projects and activities to educate road users in road safety and ultimately reduce the number of DSIs on Aotearoa roads.

- Our advertising campaigns straddle multiple road safety angles including drink driving, substance impaired driving, seatbelt use and child restraints. In some instances, we focus on particular groups such as males of certain age groups and young drivers. A recent example is our 'belted survivors' series that targeted Māori males aged 20 to 40 years.

- Over the last few years, we have worked with various partners to improve the uptake of drivers training and licensing for some groups including Māori.
- Under the National Land Transport Programme (NLTP), we invest in an ongoing programme of research aligned to the land transport sector's outcomes framework. Areas of focus include inclusive access and healthy and safe people.

Analysis and research needs

The report underpinning this summary, provides a baseline analysis of road safety outcomes for Māori. It is imperative that we partner with Māori and local government, as well as central government across a broad range of sectors, to help us understand the contextual and systemic issues that contribute to these outcomes. However, we can also continue to explore and mine various datasets to build on this 'baseline' analysis. As identified in the report, Waka Kotahi and our road safety partners need to continue to explore the contributing factors to road trauma for Māori.

While Māori are considered in some of our current NLTP funded research, this report highlights the need for more detailed research and analysis in some areas. We are currently investigating a potential research topic into transport aspirations for Māori in urban areas. Some other topics we should to explore are outlined below:

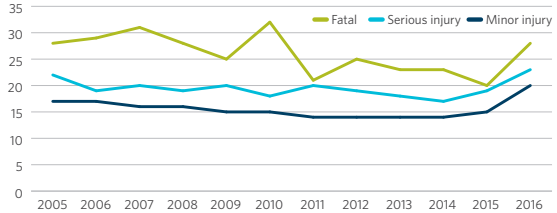
- **Ethnicity:** Work with road safety partners to find ways to improve ethnicity data in CAS and other data sets eg hospital and ACC data
- **Regional differences:** A detailed investigation into the factors contributing to Māori DSI in Auckland, Waikato and Northland Regions would provide a clearer understanding of where and how best to focus efforts of addressing road safety outcomes for Māori in Phase two.

- **Deprivation:** To understand some of the variances in the data, we need to explore what relationship (if any) the location of a crash has to place of residence (by deprivation index) for those involved.
- **Age and gender:** Further research is required to understand why DSI rates for Māori men aged 25-29 are significantly higher than for non-Māori men in the same age cohort.
- **Employment and industry:** Analysis of DSI rates in relation to employment and industry type, and vehicle kilometres travelled would also provide a more complete basis for future research.
- **Crash movement:** We need to investigate what contributing factors may be present in loss of control on bend movements to better understand why DSI rates are significantly higher for Māori (especially on urban roads).
- **Time and day of week:** Further research is needed to understand the difference in DSI rates for Māori and non-Māori in relation to time of day/night and day of week travel, and particularly in relation to Māori DSI rates throughout the night. It may also help identify if there is a relationship between fatigue and DSI rates for Māori in relation to time of day and day of week travel. Similarly, research disciplines that look at the impact of circadian rhythms (sleep-wake cycles) and moon phases may highlight other causal factors in DSIs for Māori.
- **Mode of travel:** Exploration of the Household Travel Survey may contribute to our understanding of road safety outcomes for Māori in relation to modes of transport, purpose of travel, and risk factors.
- **Vehicles:** Continue to explore the relationship between the number of casualties, vehicle occupancy and the safety rating of the vehicles involved.
- **Driver licensing:** More research and engagement with Māori is required to explore the relationship between the length of time Māori drivers are on learner or restricted licences and the constraints they face in accessing driver training, moving between licence classes, travelling to and from licence tests, and other barriers to licensing.
- **Restraints:** Research and engagement with Māori is required to understand why Māori are less likely to wear a seatbelt while driving. Similarly, investigation into alternative data sets (eg ACC or Worksafe data) may provide insights into Māori road safety outcomes related to helmet wearing.
- **Substance impaired driving:** Waka Kotahi and our road safety partners need to engage with Māori to understand how best to address the impact of alcohol use and driving for Māori. It should also investigate whether drug use or prescription medication plays a role in Māori road safety outcomes. Investigation into alternative data sets (eg ACC or WorkSafe data and the Household travel survey) may provide insights into road safety outcomes for both Māori and non-Māori in relation to distraction and fatigue.
- **Speed:** Explore the contribution of speed as to DSI crashes for Māori.

Refer to the full report for a more detailed list of research and analysis questions to be considered.

In most levels of area deprivation, Māori DSIs are 8-13% higher than the Māori proportion of population in the area

Percent of casualties recorded as Māori



Conclusion and next steps

Conclusion

The research completed in Phase One confirms that Māori continue to experience poorer road safety outcomes than non-Māori which manifests in higher rates of DSIs in road crashes.

Some more notable areas of concern highlighted by this recent analysis include a range of road user focused issues, such as the over-representation in DSI crashes of young Māori men, under-licensed driving, restraint non-use and driving while impaired.

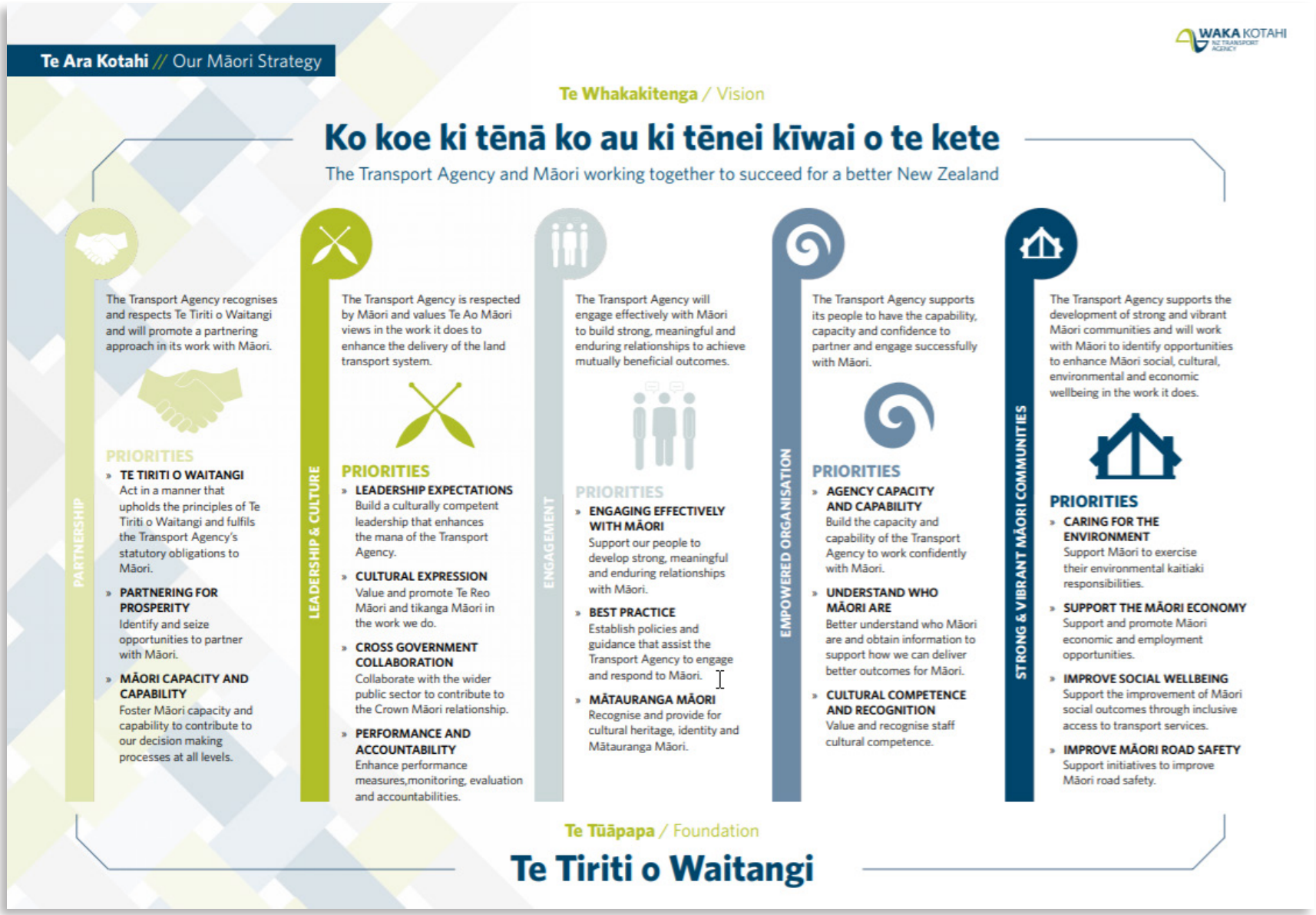
It is acknowledged that there are several limitations to this research including data constraints, limited knowledge of Te Ao Māori for Phase One researchers and limited evidence.

This research provides a foundation for further research to be undertaken, discussions with road safety partners, partnerships with Māori and collaboration on what steps are taken to support better road safety outcomes for Māori.

Next steps

For Waka Kotahi, our next steps are guided by Te Ara Kotahi (our Māori Strategy - see page 10), particularly the identified Ngā Uara (values) and Mātāpono (principles) in the strategy. We will respectfully work with our partners and acknowledge the environment we're operating in and work through the best solutions possible.

As indicated, an iterative approach is being taken for this work. The report and this summary encapsulate Phase one and guide us into Phases two and three.


Te Ara Kotahi // Our Māori Strategy
WAKA KOTAHI NZ TRANSPORT AGENCY
Te Whakakitenga / Vision
Ko koe ki tēnā ko au ki tēnei kīwai o te kete
The Transport Agency and Māori working together to succeed for a better New Zealand
PARTNERSHIP
The Transport Agency recognises and respects Te Tiriti o Waitangi and will promote a partnering approach in its work with Māori.
PRIORITIES
» TE TIRITI O WAITANGI
Act in a manner that upholds the principles of Te Tiriti o Waitangi and fulfils the Transport Agency's statutory obligations to Māori.
» PARTNERING FOR PROSPERITY
Identify and seize opportunities to partner with Māori.
» MĀORI CAPACITY AND CAPABILITY
Foster Māori capacity and capability to contribute to our decision making processes at all levels.
LEADERSHIP & CULTURE
The Transport Agency is respected by Māori and values Te Ao Māori views in the work it does to enhance the delivery of the land transport system.
PRIORITIES
» LEADERSHIP EXPECTATIONS
Build a culturally competent leadership that enhances the mana of the Transport Agency.
» CULTURAL EXPRESSION
Value and promote Te Reo Māori and tikanga Māori in the work we do.
» CROSS GOVERNMENT COLLABORATION
Collaborate with the wider public sector to contribute to the Crown Māori relationship.
» PERFORMANCE AND ACCOUNTABILITY
Enhance performance measures,monitoring, evaluation and accountabilities.
ENGAGEMENT
The Transport Agency will engage effectively with Māori to build strong, meaningful and enduring relationships to achieve mutually beneficial outcomes.
PRIORITIES
» ENGAGING EFFECTIVELY WITH MĀORI
Support our people to develop strong, meaningful and enduring relationships with Māori.
» BEST PRACTICE
Establish policies and guidance that assist the Transport Agency to engage and respond to Māori.
» MĀTAURANGA MĀORI
Recognise and provide for cultural heritage, identity and Mātauranga Māori.
EMPOWERED ORGANISATION
The Transport Agency supports its people to have the capability, capacity and confidence to partner and engage successfully with Māori.
PRIORITIES
» AGENCY CAPACITY AND CAPABILITY
Build the capacity and capability of the Transport Agency to work confidently with Māori.
» UNDERSTAND WHO MĀORI ARE
Better understand who Māori are and obtain information to support how we can deliver better outcomes for Māori.
» CULTURAL COMPETENCE AND RECOGNITION
Value and recognise staff cultural competence.
STRONG & VIBRANT MĀORI COMMUNITIES
The Transport Agency supports the development of strong and vibrant Māori communities and will work with Māori to identify opportunities to enhance Māori social, cultural, environmental and economic wellbeing in the work it does.
PRIORITIES
» CARING FOR THE ENVIRONMENT
Support Māori to exercise their environmental kaitiaki responsibilities.
» SUPPORT THE MĀORI ECONOMY
Support and promote Māori economic and employment opportunities.
» IMPROVE SOCIAL WELLBEING
Support the improvement of Māori social outcomes through inclusive access to transport services.
» IMPROVE MĀORI ROAD SAFETY
Support initiatives to improve Māori road safety.
Te Tūāpapa / Foundation
Te Tiriti o Waitangi

If you have further queries, call our contact centre on 0800 699 000 or write to us:

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