

# Arataki

Regional direction  
Taranaki

September 2023 v1.1



# At a glance



Taranaki is a highly productive region of Aotearoa New Zealand, with an economy based on the export industries of dairy farming and processing, plus oil and gas.

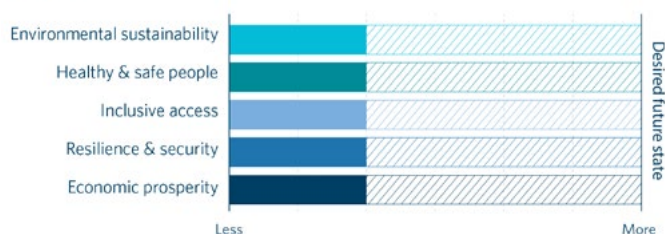
Taranaki relies on SH3 for safe, reliable connections to move people and freight north to Waikato and the road and rail connections southeast to Manawatū-Whanganui. There are no alternative northern routes suitable for heavy vehicles.

During the next 30 years, the population of Taranaki is expected to grow from 121,000 to 138,000 by 2048.<sup>1</sup> Seventy percent of the region lives in and around Ngāmotu New Plymouth, where most future growth is projected.

With higher than average rates of walking and cycling, Ngāmotu can continue boosting active modes by investing in safe and attractive facilities. Walking and cycling are the best ways for the region to reduce vehicle kilometres travelled (VKT). Increasing the share of freight moved by rail and coastal shipping will also have an important role to play in reducing emissions.

Over the next three decades, the other critical transport challenges facing Taranaki are safety, resilience, and supporting the transition to a low-carbon economy.

### Scale of effort to deliver outcomes in Taranaki



The regional ratings show how Waka Kotahi has assessed the potential scale of effort required in each region to achieve the future desired state for each outcome over the next 10 years. The ratings in each region indicates where effort can be best focused and inform conversations with partners about priority outcomes in each region.

The rating assessments are based on evidence using system levels metrics. Further details are captured in the methodology document.

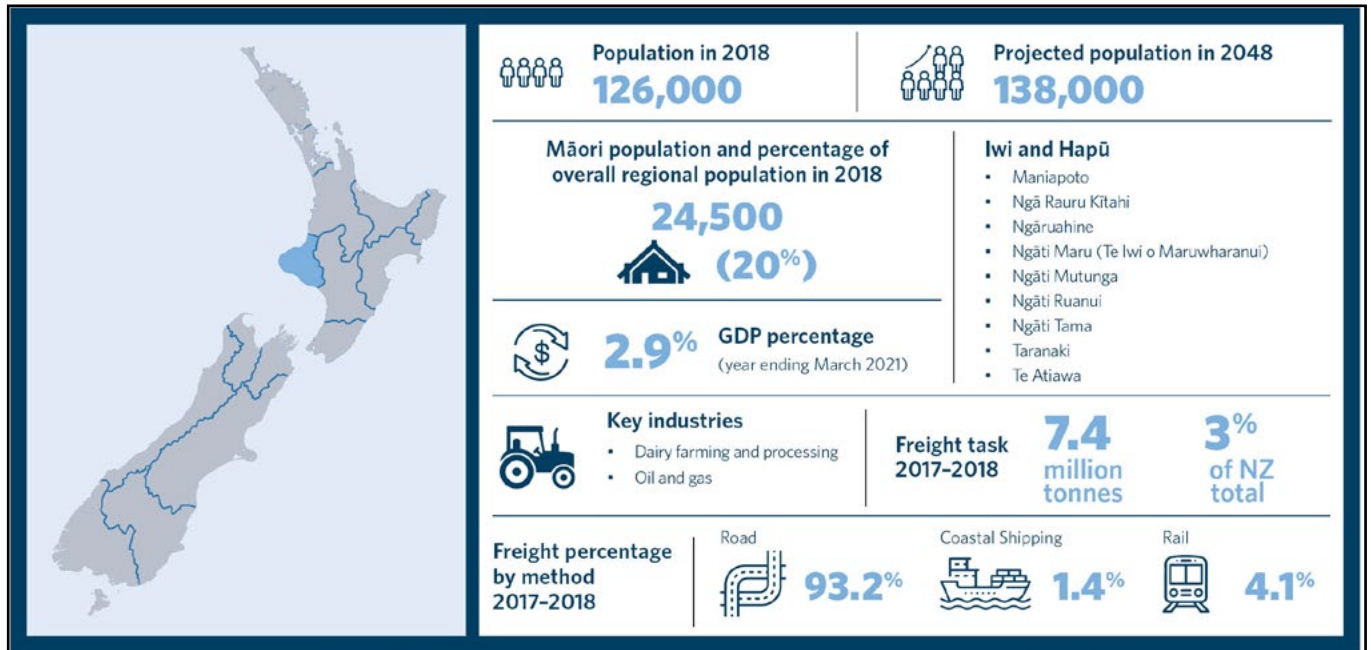
The September v1.1 release of *Arataki* includes updates to reflect the severe weather events of 2023 and correct minor errors.



# Context



## Taranaki



Taranaki has home to about 126,000 people, or 2.5% of the country's population.<sup>2</sup> Ngāmotu New Plymouth, the primary urban area, is home to nearly 70% of the region's population.<sup>3</sup> The population of Taranaki is projected to grow to around 138,000 by 2048, or 2% of the population of Aotearoa New Zealand.<sup>4</sup> In recent years, most growth in Taranaki has been from people moving into the region, rather than a natural increase in the existing population.

Most growth is expected in urban Ngāmotu. Low growth is forecasted in the smaller urban and rural areas of Ngāmotu, South Taranaki, and Stratford districts.<sup>5</sup>

By 2048, it's expected that those aged over 65 will make up 27% of the Ngāmotu district population - more than the Aotearoa average of 23%.<sup>6</sup> It will be important to provide good access for residents over 65 so they remain socially connected, active, and able to participate in their communities.

In 2018, 24,500 Māori lived in Taranaki, making up 20% of the region's population.<sup>7</sup> This is higher than the national rate of 16.5%.<sup>8</sup> Most Māori live in Ngāmotu, where they make up 18% of the district's population.<sup>9</sup>

The iwi and hapū in the Taranaki region are Maniapoto, Ngā Rauru Kītahi, Ngāruahine, Ngāti Maru (Te Iwi o Maruwharanui), Ngāti Mutunga, Ngāti Ruanui, Ngāti Tama, Taranaki, and Te Atiawa.<sup>10</sup>

*Te Ōhanga Māori - The Māori Economy 2018* includes information for the Te Tai Hauāuru rohe, that relates to the regions of Taranaki and Manawatu-Whanganui. It notes the asset base in the rohe is valued at \$5.7 billion.<sup>11</sup> The primary sector is noticeably important, followed by property.<sup>12</sup>

Taranaki has the second highest level of economic productivity in Aotearoa, making a 2.9% contribution to the country's GDP - impressive given its relatively small population.<sup>13</sup> The region's economic performance is underpinned by two high-earning, export-oriented sectors:

- dairy farming and processing
- oil and gas.

The region relies heavily on road and rail connections to the rest of the North Island for the movement of people, freight, and visitors. SH3 provides the main northern connection linking Taranaki to the Waikato and Upper North Island and the southern connection between Ngāmotu and Te Papa-i-Oea Palmerston North. SH3 is critical to the dairy industry as it connects the production centre in Hāwera to distribution centres in Te Papa-i-Oea.

Every year, heavy vehicles travel 75 million kilometres on Taranaki roads, with 63 million related to the key sectors of oil and gas, dairying, and forestry.<sup>14</sup> The transport networks of Ngāmotu are generally well connected and fit for purpose. A key area of pressure is the transport link between Ngāmotu city centre and the eastern part, where residential and business areas are growing.

The region's freight task in 2017-2018 was 7.4 million tonnes, or around 3% of the country's total.<sup>15</sup> A total of 93.2% of the freight task tonnage in Taranaki was moved by road, 4.1% by rail, and 1.4% by coastal shipping.<sup>16</sup>





# Taranaki: Outlook

While the population of Taranaki is projected to grow slightly during the next 30 years, its economy will likely transform considerably as Aotearoa New Zealand transitions to a low-carbon future.

Over the next three decades, key changes to Taranaki will be:

- supporting the country's economic transformation
- making improvements to safety and resilience
- achieving higher rates of walking and cycling in Ngāmotu New Plymouth.

The ageing population and higher proportion of residents on fixed incomes is likely to put pressure on the region's ability to:

- maintain existing networks
- fund new infrastructure
- provide appropriate services.

Climate change will make this even harder.

Steps to make progress towards transport outcomes in a more efficient and cost-effective way include:

- renewing the focus on small-scale projects and getting more from existing infrastructure
- reallocating existing road space and making temporary or low-cost improvements
- influencing travel behaviour and growth patterns.

Even with these steps, more investment from a wider range of finance and funding sources, is required to achieve key goals. New sources should be investigated, especially where these incentivise growth or transport outcomes.

This section uses the *Transport Outcomes Framework* from Te Manatū Waka Ministry of Transport to support a ‘decide and provide’ approach to proactively plan the desired future state we want to achieve. Key challenges and opportunities are identified and discussed. Then we highlight the most important actions to be taken to make progress on each outcome.

## Environmental sustainability

### Challenges and opportunities

Taranaki will need to make an important contribution to reducing carbon emissions, to reach 2035 targets set in the government’s *Emissions Reduction Plan* and net-zero emissions by 2050.<sup>17</sup>

As the main urban centre, Ngāmotu New Plymouth presents the greatest opportunity to support national emissions reductions by providing alternative transport options and reducing the need to travel. This will require a significant change to how people travel in a city with high levels of private vehicle use.

Care is required to ensure efforts to reduce vehicle kilometres travelled (VKT) don’t unfairly impact specific communities or groups.

In the Taranaki region, 84% of journeys to work are made by private vehicles.<sup>18</sup>

We need to reduce freight transport carbon through:

- adopting lower-emitting fuels
- increasing mode share for rail and coastal shipping.

We must also reduce the impact of the region’s transport system on the local environment, especially its impacts on air pollution, waterways, and ecological systems. Contaminated stormwater runoff from roads must be treated before entering waterways. The impact of new and improved transport infrastructure on the natural environment must be appropriately managed.

### Making progress

Key actions over the next 10 years to make progress on this outcome are:

- encouraging growth and development that supports compact, mixed-use urban form, reduces trip length, and lessens car dependency
- planning what interventions, activities, and investments are needed to achieve vehicle kilometres travelled (VKT) and emissions reduction
- making changes to the allocation of space on existing roads and streets to enable and increase mode shift to public transport, walking, and cycling
- improving public transport services and exploring ways technology can deliver better services at lower costs
- more actively managing carparking at major destinations and employment areas to increase use of public transport, walking, and cycling for trips to these locations
- identifying opportunities for smaller projects that can improve system outcomes, like getting the most from the existing network
- ensuring appropriate place standards, policies, and regulations are put in place to reduce the impact of the transport system on the local environment
- supporting the implementation of key policies that develop zero-emission transport solutions, such as vehicle fleet transformation; this includes working with the H2 Taranaki Hydrogen Ecosystem Development Centre in its role as the land transport regulator.

**Ngāmotu New Plymouth presents the greatest opportunity to support national emissions reductions by providing alternative transport options and reducing the need to travel.**



## Healthy and safe people

### Challenges and opportunities

The number of deaths and serious injuries on roads in Taranaki has been fairly consistent, fluctuating between 81 and 94 per year.<sup>19</sup> Serious crashes in the region are focused:

- in and around Ngāmotu New Plymouth and Hāwera
- along SH3 that connects these two centres
- on high-risk rural roads.<sup>20</sup>

Safety issues include:

- head-on and run-off road crashes
- high-risk intersections
- crashes involving vulnerable users, like people walking and cycling
- driver behaviour, like not wearing seatbelts.<sup>21</sup>

Efforts to improve road safety are guided by the *Road to Zero: New Zealand's Road Safety Strategy 2020–2030* and associated Action Plan 2020–2022, and regional safety strategies.<sup>22</sup>

Significant investments to improve road safety are underway on SH3 between Waitara and Bell Block. Te Ara o Te Ata: Mt Messenger Bypass project will also mean people no longer need to use a dangerous section of road.

Taranaki has low rates of walking and cycling because of incomplete networks. These levels have declined substantially over recent decades. Lack of physical activity contributes to many health problems, like obesity and diabetes. These problems disproportionately impact some demographics. The harmful impacts of vehicle tailpipe pollutants on health, especially on the respiratory systems of our youngest, oldest, and most vulnerable, are much greater than previously realised.<sup>23</sup>

Significant progress on the healthy and safe people outcome will support environmental sustainability and inclusive access. Providing extensive networks of safe walking and cycling facilities will encourage more people to use these healthy and sustainable travel options. Similarly, a focus on reducing deaths and serious injuries for vulnerable road users will also encourage more people to walk and cycle.

### Making progress

Continuing to realise safety plans and supporting dramatic changes to encourage walking and cycling will help the urban areas of the region. New approaches to planning, design, and delivery, along with significant investment, are needed to accelerate progress.

Key actions over the next 10 years to make progress on this outcome are:

- continuing safety improvements targeting high-risk intersections, run-off road crashes, and head-on crashes on high-risk rural roads
- rapidly rolling out a well-connected, separated cycling network through the reallocation of existing street space
- requiring high-quality active mode infrastructure to be part of new developments
- encouraging and implementing regulatory changes that reduce harmful vehicle emissions and encourage the use of zero-emissions vehicles
- continuing to manage transport system noise through planning and mitigation
- targeting road policing and behaviour change programmes with a focus on alcohol and drug impairment, speeding, and people not wearing seatbelts
- managing safe and appropriate speeds on high-risk rural roads – this includes targeted use of safety cameras to reduce speeding
- advocating for robust mobile network coverage in rural and regional areas.

**Providing extensive networks of safe walking and cycling facilities will encourage more people to use these healthy and sustainable travel options.**

## Inclusive access

### Challenges and opportunities

The region's transport system struggles to provide people of all ages, abilities, and income levels with safe, sustainable, and reliable access to a wide variety of social and economic opportunities.

A high reliance on private vehicles creates several access challenges, including:

- creating difficulties for those without easy access to, and use of, a private vehicle to fully participate in society
- placing significant pressure on household budgets to meet the high costs of car ownership and use
- limiting people's ability to travel in a way that best meets their needs because of poor travel choice.

Rural communities need access to key centres, such as Ngāmotu New Plymouth and Whanganui, for education, employment, and essential services. As the population of Taranaki ages, travel needs will change; there will be a greater need to access health services, and less need to access education and employment.

Emerging technologies, such as on-demand shuttles, could provide a shared-transport option. These would help people get around smaller towns and rural communities, and improve access to services in Ngāmotu and Whanganui.


Improved access to high-quality data and information will allow better management of the transport system to get the most out of existing infrastructure.

### Making progress

Improving inclusive access will often align with making progress on other outcomes, especially where travel choice is improved, and car dependency reduced. However, there may be challenging trade-offs to consider, such as balancing increased travel costs to reduce emissions while ensuring lower-income families aren't unfairly impacted.

Key actions over the next 10 years to make progress on this outcome are:

- shaping planning rules to enable and encourage more people to live in areas with better existing access to social and economic opportunities
- improving public transport services, and expanding on-demand services where appropriate
- exploring opportunities to improve the affordability of public transport for lower-income households
- expanding and improving walking and cycling facilities, so low cost, sustainable, healthy travel options are safe and attractive for more journeys
- ensuring transport infrastructure and services are designed and provided to meet the needs of people of all ages and abilities
- improving access to opportunities for iwi Māori, including access to sites of cultural significance
- exploring opportunities to support the mobile or digital delivery of essential services.



**Rural communities need access to key centres, such as Ngāmotu New Plymouth and Whanganui, for education, employment, and essential services.**



## Economic prosperity

### Challenges and opportunities

Over the next three decades, the transition to a low-emissions economy in line with the Climate Change Response (Zero Carbon) Amendment Act will mean significant change to the region's economy. Transport has a role to support this change. It must also be flexible to the evolving nature and direction of freight movement.

As the oil and gas centre of Aotearoa New Zealand, Taranaki is exploring alternative energy options in response to climate change.

Expanded forestry harvesting to 2030 will increase freight movements in the south and east of the region. Reliable and resilient interregional connections to the north and south will continue to be important.

With the sea to the north and challenging terrain to the west and south, most residential growth in Ngāmotu New Plymouth will be east of the city. This will put pressure on the transport system and create conflict points between local trips and convenience versus longer-distance journeys.

An increasing number of residents on fixed incomes will likely make it harder to:

- maintain existing infrastructure
- fund new infrastructure
- provide appropriate services.

Technological change will have significant impacts on demand for travel and on the economy of Taranaki. The COVID-19 pandemic accelerated working from home, while future developments, like artificial intelligence and automation, could have an impact on the type and location of work people do.

Transport planning will need to be flexible in response to these changes, recognising high levels of uncertainty around the nature and location of future jobs and the impact of this on travel patterns.

### Making progress

Economic productivity and business competitiveness in the region can be improved by a transport system that provides:

- a range of travel options with wide capacity
- reliable journey times
- safe and low-cost ways of getting around.

Key actions over the next 10 years to make progress on this outcome are:

- improving access to social and economic opportunities, especially by walking and cycling, in Ngāmotu New Plymouth and other regional towns
- supporting resilient, reliable, and efficient freight and business travel around key parts of the network, especially around interregional connections, and to key freight and industrial hubs
- exploring opportunities to move to a more multimodal freight system with greater use of rail and coastal shipping
- managing increased transport costs in a way that doesn't negatively impact economic activity
- supporting the continued development of key economic centres by improving access and amenity (attractiveness)
- supporting improved accessibility in local and town centres to allow these areas to flourish and better provide for the needs of residents
- completing investigations and improvements along SH3 and SH43 Forgotten World Highway, to strengthen connections from Taranaki to the rest of the country.



**Reliable and resilient interregional connections to the north and south will continue to be important.**

## Resilience and security

### Challenges and opportunities

The next 30 years will see a growing risk of damage to road and rail networks because of increased rain and storm intensity, coastal and soil erosion, sea level rise, flooding, slips, and storm surges.<sup>24</sup>

Networks to the north and east of the region are expected to come under increased pressure from storm intensity combined with unstable terrain. Particularly significant risks along SH3 relate to rockfall, landslips, erosion, and flooding.

Te Ara o Te Ata: Mt Messenger Bypass along SH3 will remove a problematic, steep, narrow, and winding section of road at Mt Messenger. There are also a range of safety, resilience, and reliability issues being addressed through this corridor safety improvement project.

More than ever, there must be a greater focus on maintaining existing assets at current levels of access and connectivity. There is a major opportunity to progress multiple outcomes by investing in maintenance and renewals, but this requires changes to current practices and increased funding.

To be resilient, the region's transport system must be able to adapt to uncertainty and rapid change. For example, in recent years the popularity of e-scooters and then the need for social distancing during the COVID-19 pandemic highlighted:

- a need for more adaptable approaches to road space management
- unexpected benefits from past improvements to walking and cycling facilities.


Rapidly fluctuating fuel prices throughout 2022, caused by international events, also emphasised the need to reduce dependency on fossil fuel.

### Making progress

The transport system needs an ongoing focus on maintaining existing assets along with targeted improvements to reduce risks. We also need to expand our understanding of resilience in urban environments, to ensure planning work is flexible and adaptable to change.

Key actions over the next 10 years to make progress on this outcome are:

- continuing design and planning work to identify and prioritise responses to natural hazards in high-risk areas - this includes working with communities to identify plans for when to defend, accommodate, or retreat
- understanding routes that provide critical connections, the conditions of these, the pressures, and the level of investment needed to address impacts - this includes identifying priorities for network resilience
- engaging in local planning processes to avoid infrastructure and development in areas at risk of natural hazards and climate change
- seeking continuous improvement in network resilience through maintenance, renewals, and 'low cost/low risk' investments
- improving operational responses to events to support quick recovery following disruption to the land transport system
- shifting to more adaptable 'scenarios-based' planning
- improving personal security for people using the region's transport system.



**To be resilient, the region's transport system must be able to adapt to uncertainty and rapid change.**



# Taranaki: Focusing our efforts



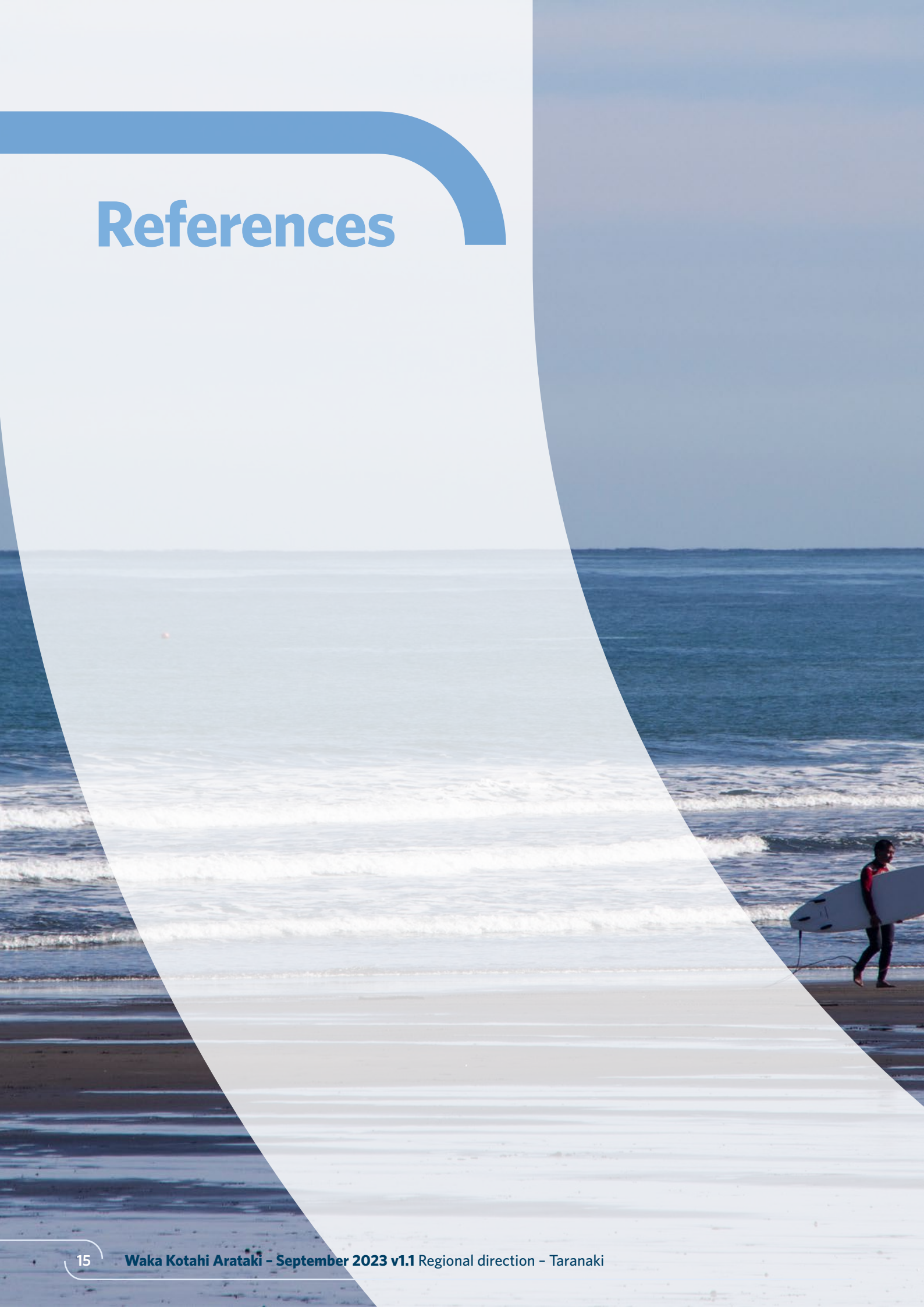
For efficient and effective progress, transport challenges in Taranaki must be tackled in a cohesive way. The directions below identify the most important issues to be resolved over the next 10 years to make progress towards transport outcomes.

- Begin to reduce vehicle kilometres travelled (VKT), focusing on Ngāmotu New Plymouth, in a way that's fair, equitable, and improves quality of life.
- Enable and support the region's transition to a low-carbon economy.
- Maintain and improve the resilience and efficiency of interregional connections to the north and south.
- Improve access to social and economic opportunities, especially by public transport, walking, and cycling.
- Significantly reduce the harm caused by the region's transport system, especially through improved road safety and reduced pollutants dangerous to people's health.
- Actively support, enable, and encourage growth and development in areas that already have good travel choices and shorter average trip lengths.
- Rapidly accelerate the delivery of walking and cycling networks, predominantly through reshaping existing streets, to make these options safe and attractive.
- Explore the potential for new and emerging technologies, such as on-demand services, to improve access to social and economic opportunities.
- Better understand the impact of future economic transformation on travel patterns and freight volumes.
- Explore opportunities to move to a multimodal freight system with greater use of rail and coastal shipping.
- Confirm how key resilience risks will be addressed over time, and work with communities to plan when to defend, accommodate, or retreat.
- Continue to implement road safety plans and programmes including those focused for iwi Māori.
- Improve or maintain, as appropriate, physical access to marae, papakāinga, wāhi tapu, and wāhi taonga.

These will be updated over time to focus effort on the most critical matters.



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