## Arataki

Regional direction Tāmaki Makaurau – Auckland September 2023 v1.1



Te Kāwanatanga o Aotearoa

## At a glance

## Because of its size, scale and substantial forecasted future growth, Tāmaki Makaurau Auckland has a significant role to play in achieving transformational change and our national transport outcomes.

The scale and complexity of the transport challenges in Tāmaki Makaurau, coupled with the country's reliance on its economic significance, means a strong partnership between central government, local government, and Māori is essential.

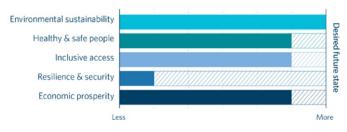
Tāmaki Makaurau needs more compact, mixed-use, urban form along with greater use of public transport, walking, and cycling. This would support emissions reduction, improve access to travel options, increase housing supply and affordability, and help make Tāmaki Makaurau a better place to live.

Significant investment is needed to expand the rapid transit network, improve public transport services, complete the cycling network, and enable growth. This investment needs to get more from the city's existing infrastructure and increase the numbers using alternative travel choices.

Tāmaki Makaurau has well-established transport plans and planning processes, such as the Auckland Transport Alignment Project (ATAP) and the *Auckland Plan 2050*. Throughout 2023 central government and Auckland Council have been developing the Tāmaki Makaurau Integrated Transport Plan (TMITP), to maintain alignment on a long-term strategic approach and short-term investment priorities. The Auckland Development Strategy and the new Future Development Strategy were also reviewed in 2023 to better integrate future land use with infrastructure provision. Ongoing joint planning will be critical to delivering the right outcomes in a complex and constantly changing landscape.

Resilience should also be considered, with parts of Tāmaki Makaurau vulnerable to landslips, flooding, erosion, and high winds.

## Scale of effort to deliver outcomes in Tamaki Makaurau – Auckland



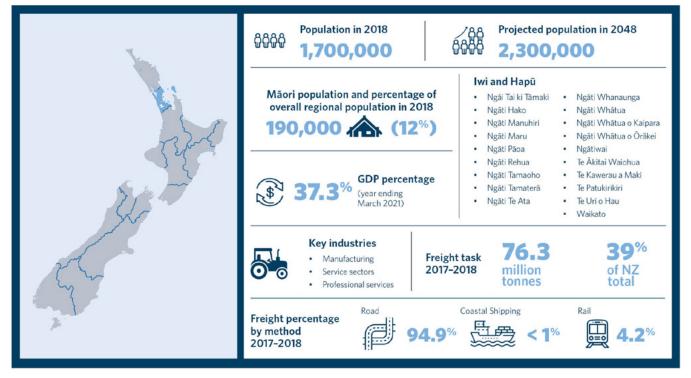
The regional ratings show how Waka Kotahi has assessed the potential scale of effort required in each region to achieve the future desired state for each outcome over the next 10 years. The ratings in each region indicate where effort can be best focused and inform conversations with partners about priority 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 2023 v1.1 release of *Arataki* includes updates to reflect the severe weather events of 2023 and correct minor errors. Most sections of the *Regional direction Tāmaki Makaurau – Auckland* have climate-related updates.

# Context

#### Tāmaki Makaurau - Auckland



More than a third of the country's population live in the Tāmaki Makaurau Auckland region, which has grown by about 500,000 people over the past 20 years.

The size and ongoing growth in Tāmaki Makaurau, combined with a challenging geographic layout and history of imbalanced transport investment, means the region already has many transport challenges that will increase over time. Because Tāmaki Makaurau plays a key role within the wider Upper North Island, achieving national transport outcomes is highly dependent on what happens in the country's biggest city.

The population of Tāmaki Makaurau is projected to grow from about 1.7 million in 2021 to 2.3 million by 2048.<sup>1</sup> This is a faster rate of growth than the rest of Aotearoa New Zealand, because of higher immigration rates and a younger population. By 2048, the region's share of the country's population is forecast to increase from 33% to 37%.<sup>2</sup>

In 2018, more than 190,000 Māori lived in Tāmaki Makaurau, making up 12% of the region's population.<sup>3</sup>

While this is a lower proportion than the national total of 16.5%, there are still more Māori living in Tāmaki Makaurau than any other region.<sup>4</sup> Most Māori live in west and south Tāmaki Makaurau. Manurewa has the highest proportion of Māori at 26% of the population.<sup>5</sup>

The iwi and hapū in the Tāmaki Makaurau region are Ngāi Tai ki Tāmaki, Ngāti Hako, Ngāti Manuhiri, Ngāti Maru, Ngāti Pāoa, Ngāti Rehua, Ngāti Tamaoho, Ngāti Tamaterā, Ngāti Te Ata, Ngāti Whanaunga, Ngāti Whātua, Ngāti Whātua o Kaipara, Ngāti Whātua o Ōrākei, Ngātiwai, Te Ākitai Waiohua, Te Kawerau ā Maki, Te Patukirikiri, Te Uri o Hau, and Waikato.<sup>6</sup>

Over the next 30 years, Tāmaki Makaurau is expected to see 54% of the country's total population growth and 63% of working age (15-64 years) growth.<sup>7</sup> The region's population is expected to stay relatively young and more culturally diverse than any other city in Aotearoa.<sup>8</sup> Between 2018 and 2021, the fastest growing local board areas were Rodney and Papakura.<sup>9</sup> Populations declined in Albert-Eden, Kaipātiki, and Devonport-Takapuna.<sup>10</sup>

Tāmaki Makaurau is the powerhouse of the country's economy, making up 38% of the country's GDP and 40% of its tax revenue.<sup>11</sup> It's where nearly every large headquarters in Aotearoa is based; this includes many high-end professional services and finance jobs. There are 900,000 workers in Tāmaki Makaurau.<sup>12</sup> In the past decade, economic growth in Tāmaki Makaurau was driven by population growth, resulting in increased demand for construction and business service sectors.<sup>13</sup>

Most of the population of Tāmaki Makaurau live in urban areas. Manufacturing and the service sector dominate the region's economy. The large population supports a higher level of specialisation than other parts of the country. Many jobs are concentrated in key centres, like the city centre – this is the country's largest employment area with well over 100,000 jobs.<sup>14</sup> Tāmaki Makaurau has a growing Māori economy and asset base, valued at \$12.5 billion in 2018.<sup>15</sup> It is focused on property, public, and professional services.<sup>16</sup>

Tāmaki Makaurau is the main gateway in and out of Aotearoa New Zealand for people and goods. The Port of Auckland receives the largest value of imports.<sup>17</sup> Inland ports at Wiri and Southdown are nationally significant distribution hubs.

Before COVID-19, the region's total annual tourism spend (about \$7.8 billion) was the country's largest (more than double that of Ōtākou Otago in second place).<sup>18</sup> Of this, 53% was generated from international visitors.<sup>19</sup>

Severe weather events are already affecting the land transport system of Tāmaki Makaurau. There were two severe weather events alone at the start of 2023: the Auckland Anniversary Weekend floods in January and Cyclone Gabrielle in February. Flooding, landslips, and storm damage caused road closures at multiple locations of SH1, SH16 between Kumeū and Wellsford, and SH2OA Kirkbride Tunnel. Rail was also affected with closures to the North Auckland Line between Swanson and Whangārei and at multiple locations along the Auckland rail network.

Because Tāmaki Makaurau plays a critical role in the country's supply chain, the effects of any deterioration to the resilience and efficiency of key freight networks have national implications.

The region's freight task in 2017-2018 was 76.3 million tonnes, or around 39% of the Aotearoa total.<sup>20</sup> A total of 94.9% of the freight task tonnage in Tāmaki Makaurau was moved by road, 4.2% by rail, and less than 1% by coastal shipping.<sup>21</sup> Internal freight movements make up around 84% of the freight task in Tāmaki Makaurau.<sup>22</sup>

Every year, the people of Tāmaki Makaurau travel around 15 billion kilometres by private vehicle and 1 billion kilometres by public transport.<sup>23</sup> Public transport use grew steadily from around 35 million boardings a year in the mid-1990s to more than 100 million a year in 2019.<sup>24</sup> Use of public transport is slowly recovering from the impacts of COVID-19.

## The Auckland Plan and Auckland Transport Alignment Project (ATAP)

Tāmaki Makaurau Auckland has taken steps to integrate spatial and transport planning through the Auckland Plan and ATAP

### **Auckland Plan 2050**

Tāmaki Makaurau Auckland is currently the only region with a legislatively mandated spatial plan, the *Auckland Plan* 2050.<sup>25</sup> Adopted in 2018, this 30-year plan guides how the region will grow. It also outlines how it will ensure shared prosperity for all Aucklanders in response to the challenges of high population growth, environmental degradation, and climate change.

The Auckland Plan 2050 proposes a 'quality compact' growth model.<sup>26</sup> This model allows for the most growth in existing urban areas, with the growth balance in new peripheral areas. The greatest levels of change are anticipated in nodes, centres, and development areas. The plan also provides a long-term transport strategy for the region, through three objectives and seven focus areas.

#### **Objectives**

- 1. Maximise safety, environmental protection, and emissions reduction.
- 2. Better connect people, places, goods, and services.
- 3. Increase genuine travel choices for a healthy, vibrant, equitable Auckland.

#### **Focus areas**

- 1. Make better use of existing transport networks.
- 2. Target new transport investment to the most significant challenges.
- 3. Maximise the benefits of transport technology.
- 4. Make walking, cycling, and public transport preferred choices for more Aucklanders.
- 5. Better integrate land-use and transport.
- 6. Move to a safe transport network free from death and serious injury.
- 7. Develop a sustainable and resilient transport system.

## **Auckland Transport Alignment Project (ATAP)**

ATAP is a cross-agency partnership between the government and Auckland Council.<sup>27</sup> It was formed in 2015 to develop an aligned long-term strategic approach for the region's transport system. The scale and complexity of transport challenges in Tāmaki Makaurau means a different, more collaborative approach to transport planning is essential.

Three shorter-term 10-year reports in 2017, 2018, and 2021 provided detailed investment direction to guide the *Regional Land Transport Plan* (RLTP) and the National Land Transport Programme (NLTP).

Throughout 2023, ATAP partners have been developing the Tāmaki Makaurau Integrated Transport Plan (TMITP). The scope of this plan includes:

- developing a long-term strategic integrated view of transport needs
- presenting an integrated network that shows how all transport modes will work together, including people and freight, now and into the future
- outlining the implications of consolidating and moving Ports of Auckland
- providing direction to upcoming statutory-funding processes on the three-to-10-year transport programme, within known funding sources and options for investment above this level.

The scale and complexity of transport challenges in Tāmaki Makaurau means a different, more collaborative approach to transport planning is essential.

## Tāmaki Makaurau -Auckland: Outlook

8

Waka Kotahi Arataki – September 2023 v1.1 Regional direction – Tāmaki Makaurau – Auckland

NO EI

EXC

## To achieve key transport outcomes over the next 30 years, transformational change is required in Tāmaki Makaurau Auckland.

The region's transport network has been significantly upgraded during the past two decades, with completion of the long-planned motorway network and the beginning of a region-wide rapid transit network.

Significant planning projects underway include:

- Auckland Light Rail
- North West Rapid Transit
- Airport to Botany Rapid Transit
- Waitematā Harbour Connections additions.

However, public transport and cycle networks remain relatively undeveloped, and most people are dependent on private vehicle use. This is because of a long history of outwards urban growth and imbalanced transport investment to expand the road network.

Addressing the transport challenges in Tāmaki Makaurau is especially difficult. This is because of rapid growth and the need to fund the maintenance, operation, and renewal of a growing, dispersed, and heavily used transport network.

Changes to the rules around land-use planning means significant growth will be possible across most of the urban areas. This can be done through higher density redevelopment and a more flexible approach to allowing low-density housing (greenfield growth) on the urban periphery. This creates uncertainty about where the additional 520,000 people in Tāmaki Makaurau will live in 30 years. Initial work suggests most growth will be in the existing urban area, but may spread more evenly across the city than previously forecast.<sup>28</sup> In light of increased extreme weather events, the next 30 years will present long-term resilience challenges as the likelihood of damaged roads and rail networks grows. It will be necessary to work with communities to:

- understand climate adaptation
- identify and prioritise responses in high-risk areas
- identify sections of the network prone to closure
- plan to avoid infrastructure and development in high-risk areas.

It's becoming more expensive to operate, maintain, and renew existing assets and services, because of greater use and past under-investment. Delivering new infrastructure is also becoming more expensive as land prices soar and more sophisticated solutions, like tunnelling, are required.

Steps to make sure transport outcomes are delivered in a more efficient and effective way include:

- increasing the focus on small-scale projects across more locations in response to the uncertainty about where growth will occur – this includes getting more from existing infrastructure and services
- increasing use of active modes and public transport by reallocating existing road space and making temporary or low-cost improvements
- influencing travel behaviour through pricing tools.

Even with these steps, more investment from a wider range of finance and funding sources is required to achieve key outcomes. New sources should be investigated, especially where these will help incentivise desirable 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**

Tāmaki Makaurau Auckland has a crucial role to play in reducing carbon emissions from transport. The region needs to make a major contribution if the country is to achieve the 2035 targets set in the *Emissions Reduction Plan* and net-zero emissions by 2050.<sup>29</sup> Compared to other parts of Aotearoa New Zealand, Tāmaki Makaurau has the greatest potential to reduce emissions and lower traffic volumes by changing urban form and shifting to more sustainable travel choices. Achieving these goals would mean wider safety, economic, health, and quality of life benefits for the people of Tāmaki Makaurau.

To meet vehicle kilometres travelled (VKT) reduction targets in the *Emissions Reduction Plan*, traffic volumes in Tāmaki Makaurau must decrease almost immediately.<sup>30</sup> Decoupling VKT from population and employment growth will require a fundamental change to the Tāmaki Makaurau transport system. There must be unprecedented improvements to travel choice. New policies and regulations are required to reduce car dependency and encourage shorter travel distances using sustainable modes, like walking, public transport, and cycling.

Land-use decisions to reduce trip lengths and focus growth in areas with better travel choice will be essential. Major investment and change to existing infrastructure and services needs to make public transport, walking, and cycling more attractive than driving for more journeys. Policies, like congestion or distance pricing, and good parking management are essential to supporting these changes.

While there is a good understanding of what interventions and activities are needed to progress to achieve changes, more work is required to confirm the scale of these interventions – especially given the urgency to meet emission reduction targets. Legislation is also required to enable some interventions, such as congestion pricing. These rapid and radical changes will deliver many benefits, yet also present major challenges. Tāmaki Makaurau must find ways to reduce VKT in a way that's fair and equitable. Care is required to ensure efforts to reduce VKT don't unfairly impact specific communities or groups. This will be difficult given many outer suburbs in west and south of the city have:

- poorer existing travel choices
- higher levels of deprivation
- longer trips to work, education, and other services.<sup>31</sup>

VKT must be reduced in a way that manages negative impacts on the economy, given VKT and economic performance have been linked in the past.<sup>32</sup> Care must be taken around any major increases to the cost of travel, especially in the movement of goods and services, as these costs will eventually be passed on to the end user.

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.

> To meet vehicle kilometres travelled (VKT) reduction targets in the *Emissions Reduction Plan*, traffic volumes in Tāmaki Makaurau must decrease almost immediately.

#### Making progress

As a Tier 1 urban environment, Tāmaki Makaurau Auckland will need to do much of the heavy lifting for the country, to contribute towards national vehicle kilometres travelled (VKT) reduction. This work will inform future planning and investment decision-making.

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

- enabling and incentivising growth and urban development decision-making to support a compact, mixed-use urban form that reduces trip length and car dependency
- confirming the details, pace, and scale of interventions and investments required to achieve VKT and emissions reduction
- making rapid and extensive changes to the allocation of space on existing roads to accelerate delivery of public transport, walking, and cycling networks
- expanding and upgrading the rapid transit network to encourage mode shift for people and freight, and shape a more compact, mixed-use urban form along key transport corridors
- improving public transport service frequency, reliability, coverage, and efficiency – this includes exploring opportunities to use technology to deliver better services at a lower cost
- more actively managing carparking at major destinations and employment areas, to increase use of public transport, walking, and cycling
- identifying opportunities for smaller projects, like making the most of the existing network, that can improve system outcomes while larger transformational projects are planned and built
- ensuring appropriate standards, policies, and regulations are in place to reduce the impact of the transport system on the local environment of Tāmaki Makaurau
- supporting the implementation of key policies, like the introduction of congestion pricing and efforts to transform the vehicle fleet to lower emissions.

## Healthy and safe people

#### **Challenges and opportunities**

The number of deaths and serious injuries on Tāmaki Makaurau Auckland roads nearly doubled between 2013 and 2017, reversing decades-long improvement.<sup>33</sup> Some headway has been made over the past five years, but not in a sustained way. Road users are exposed to high levels of harm in urban areas, as well as unsafe roads in rural areas.<sup>34</sup> This disproportionately affects children, Māori, Pacific people, and people living in higher deprivation areas.<sup>35</sup> As roads become more congested and more people choose to walk and cycle, these risks will only worsen unless addressed.

Efforts to improve road safety are guided by the *Road to Zero* – *New Zealand's Road Safety Strategy 2020–2030.*<sup>36</sup> They are also informed by the *Auckland Road Safety Programme Business Case.*<sup>37</sup>

Walking and cycling rates are low in Tāmaki Makaurau. The region has an urban form that often requires long trips to access services and facilities. It also has an undeveloped, unsafe, and disconnected cycling network. Walking and cycling rates have declined substantially over recent decades, contributing to a lack of physical activity and subsequent health problems. These health issues, like obesity and diabetes, disproportionately impact some demographics and occur more frequently in some parts of Tāmaki Makaurau.<sup>38</sup> 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>39</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 – which in Tāmaki Makaurau is particularly skewed towards vulnerable road users – will also encourage more people to walk and cycle.

#### Making progress

As highlighted, there are well-developed plans to guide the steps to reduce harm and enhance physical and mental health in Tāmaki Makaurau Auckland. These plans focus on making it easier and safer for people to choose active travel options. This contributes to reducing exposure to harmful pollutants and achieving the Road to Zero vision of reducing transport-related deaths and serious injuries.

Transformational shift needs to be made to improve safety of active modes. The cycling network of Tāmaki Makaurau is a major area of focus given its highly undeveloped nature. The current approach will take decades to complete, so new approaches to design and delivery are required along with significantly more investment.

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

- encouraging more compact, mixed-use urban form where a greater number of trips are short and easily accessible by active modes
- rapidly rolling out the planned cycling network for Tāmaki Makaurau, largely 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 use of zero-emissions vehicles
- continuing to manage transport system noise through planning and mitigation
- significantly reducing the number of deaths and serious injuries, especially for vulnerable road users, by creating safer and more forgiving roads and streets, applying safe and appropriate speed limits, and reducing dangerous travel behaviour.

Road users are exposed to high levels of harm in urban areas, as well as unsafe roads in rural areas.

## **Inclusive access**

### **Challenges and opportunities**

The Tāmaki Makaurau Auckland transport system struggles to provide people of all ages, abilities, and income levels with safe, sustainable, and reliable access to a variety of social and economic opportunities. Despite progress over the last 20 years, the people of Tāmaki Makaurau are still reliant on private vehicles for most journeys. Vehicle dependency creates several access challenges, including:

- difficulties for those without easy access to, and use of, a private vehicle to fully participate in society
- significant pressure on household budgets to meet the high costs of car ownership and use
- limiting peoples' ability to travel in a way that best meets their needs due to varied coverage and frequency of public transport, and safe cycling and walking networks
- overwhelming congested networks leading to delays and poor travel time reliability – this reduces the number of social and economic opportunities people can access within a set travel time.

Major effort is required to ensure inclusive access for the people of Tāmaki Makaurau over the next 30 years. The above challenges are magnified when combined with the region's geographic layout, population growth, response to climate change, and urban development.

This is especially true for south and west Tāmaki Makaurau. People in these areas are far from the large number of jobs in, and around, the city centre. This means they're heavily reliant on private vehicles. They also have higher levels of deprivation and Māori population than other parts of Tāmaki Makaurau.<sup>40</sup>

#### Making progress

A shift is needed in research, planning, and design processes, with greater focus on understanding the transport needs and challenges for people of different ages, ethnicities, incomes, and abilities.

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 also be challenging trade-offs to consider over time. For example, balancing the likely increase in travel costs to reduce emissions against the equity impacts on lowerincome families. Or the extent to which public transport services could improve coverage and affordability, compared to focusing on economic and environmental benefits.

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

- shaping planning rules and urban development decisionmaking to enable and encourage growth in areas with better existing access to social and economic opportunities
- improving the frequency and reliability of public transport services, especially in higher deprivation areas
- improving the affordability of public transport for lowerincome families
- expanding and improving walking and cycling facilities, so low-cost, sustainable, and healthy travel options are safe and attractive for more journeys
- ensuring transport infrastructure and services are designed and provided in a way that meets the needs of people of all ages and abilities, especially in improving access to the transport system for those with mobility constraints
- improving access to opportunities for iwi Māori, including access to sites of cultural significance
- supporting mobile or digital delivery of essential services.<sup>41</sup>

Major effort is required to ensure inclusive access for the people of Tāmaki Makaurau over the next 30 years.

## **Economic prosperity**

### **Challenges and opportunities**

In Tāmaki Makaurau Auckland, residential, employment, shopping, and industrial/logistics hubs are spread across the urban area. Although public transport is improving and is a competitive alternative for travel to the city centre and education facilities, most commuting, shopping trips, and business travel is by private vehicle. Most freight is transported by road, especially for trips within Tāmaki Makaurau.

Much of the strategic road network is congested during peak periods and is increasingly overwhelmed on key routes during the interpeak. Without action, these problems will get worse as the population grows and will result in suppressed economic growth due to high travel costs.

Declining road network performance risks two wider economic impacts:

- Reduced ability for people to easily access employment because of time and travel choice constraints. This is particularly relevant in parts of west and south Tāmaki Makaurau that have relatively low access to cars and public transport. In combination, these access challenges impact on the city's overall productivity and risk reducing the benefits of economic scale as Tāmaki Makaurau grows.
- 2. Longer travel times, congestion, and unreliable travel times impact freight, courier, and business movements. This requires more people and vehicles to do the same task. This disrupts the supply chain and increases costs, which are then passed on to businesses and consumers. This is important because Tāmaki Makaurau contains key transport and logistics hubs that serve the rest of Aotearoa New Zealand, so cost impacts would be spread throughout the economy.

Over the coming decades, technological change will have significant impacts on the economy of Tāmaki Makaurau, and on travel demand. 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 higher levels of uncertainty around the nature and location of future jobs and the impact of this on travel patterns. It will also provide an opportunity to manage the use of the network more effectively. The electrification of the light vehicle fleet will help reduce carbon emissions. However, unless road congestion is also reduced, the economic benefits of this change will not be fully realised.

### **Making progress**

Economic productivity and business competitiveness in Tāmaki Makaurau Auckland can be improved by a transport system that provides:

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

These improvements have wider and more indirect benefits like:

- supporting increased productivity by clustering large numbers of people and jobs (agglomeration)
- enabling housing supply and urban development for a changing population demographic
- increasing labour pools and the number of available jobs to people within a reasonable travel time.

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

- improving access to social and economic opportunities (especially by public transport, walking, and cycling) and for west and south Tāmaki Makaurau to enable all people of the region to benefit from ongoing growth
- supporting resilient, reliable, and efficient freight and business travel around key parts of the network, especially outside peak periods and to key freight and industrial hubs
- managing increased transport costs in a way that doesn't negatively impact economic activity
- supporting the continued development of economic centres by improving access and amenity (attractiveness)
- supporting more efficient options for the 'last-mile' movement of goods to reduce congestion and air pollution
- supporting improved accessibility to local and town centres to allow them to flourish and provide for the dayto-day needs of residents
- enabling easy connections between transport modes and co-locating transport and community services at transport hubs
- supporting the Māori economy to increase rangatahi (young people) participation in education and training.

## **Resilience and security**

### **Challenges and opportunities**

The natural layout in Tāmaki Makaurau Auckland creates resilience challenges for the transport network. High dependency on key connections, like Auckland Harbour Bridge and the Northwestern Motorway causeway, means that small incidents can quickly create widespread disruption. Rising sea levels and extreme weather events threaten key locations that are at high risk of damage or disruption.

The greatest challenges are landslips, flooding, erosion, and high winds. The Auckland Harbour Bridge, and its approaches, face major resilience challenges related to flooding and high-wind events when the bridge must be closed for safety. In 2023, this section and others on the state highway and rail network were closed because of severe weather events. These impacts are expected to increase over time as the climate changes.

More extreme weather events and ongoing population growth means an unprecedented level of effort is required to look after existing assets and maintain current levels of access and connectivity. There is a major opportunity to make progress on 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 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.

Conflicts between passenger and freight use of the rail network also needs to be addressed over time to enable both to grow. Ongoing shared use of infrastructure creates major resilience risks, where minor incidents and delays can have significant knock-on effects to the rail network.

The main security challenge facing Tāmaki Makaurau is crime. Fears for personal safety discourage many people, particularly women, seniors, and children, from using public transport, walking, and cycling. This is felt especially after dark. Travel options must feel safe to all users to encourage greater use.

### **Making progress**

To improve resilience in Tāmaki Makaurau Auckland, 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 a highly complex urban environment, 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
- continuing to better understand routes that provide critical connections, the condition of these, the pressures, and the level of investment needed to address impacts

   this includes assessments to identify priorities for network resilience
- engaging in local planning to avoid infrastructure and development in areas at increased 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 transport system.

More extreme weather events mean an unprecedented level of effort is required to look after existing assets and maintain current levels of access and connectivity.

## Tāmaki Makaurau -Auckland: Focusing our efforts

Transport challenges in Tāmaki Makaurau Auckland must be tackled in a cohesive way for efficient and effective progress. The directions below identify the most important issues to be resolved over the next 10 years to make progress towards transport outcomes.

- Actively support, enable, and encourage as much growth and development as possible in areas that already have good travel choices and shorter average trip lengths.
- Rapidly accelerate delivery of walking, cycling, and public transport improvements through reshaping and reallocating existing streets to drive significant mode shift in line with emission reduction goals.
- Confirm timing and sequencing of major planned strategic projects, especially the rapid transit network, to provide greater certainty to the public about these investments to help shape future growth patterns.
- Confirm the implementation of demand management tools, such as pricing, to unlock the significant benefits while mitigating potential equity challenges.
- Confirm how key resilience risks will be addressed over time, and work with communities to identify when to defend, accommodate, or retreat.
- Continue to implement road safety plans and programmes, including those focused for iwi Māori.
- Establish new methods of effective, long-term, integrated planning and investment decision-making for infrastructure that reflects the high-level of uncertainty around the location and timing of growth.
- 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.

## References

18 Waka Kotahi Arataki – September 2023 v1.1 Regional direction – Tāmaki Makaurau – Auckland

- Statistics New Zealand (2021). Subnational population projections: 2018(base)-2048. stats.govt. nz/information-releases/subnational-populationprojections-2018base2048
- Statistics New Zealand (2021). Subnational population projections: 2018(base)-2048. stats.govt. nz/information-releases/subnational-populationprojections-2018base2048
- 3. Statistics New Zealand (2022). Subnational ethnic population projections: 2018(base)-2043. stats. govt.nz/information-releases/subnational-ethnic-population-projections-2018base2043
- Statistics New Zealand (2022). Subnational ethnic population projections: 2018(base)-2043. stats. govt.nz/information-releases/subnational-ethnicpopulation-projections-2018base2043
- Statistics New Zealand (2022). Subnational ethnic population projections: 2018(base)-2043. stats. govt.nz/information-releases/subnational-ethnicpopulation-projections-2018base2043
- 6. Te Puni Kōkiri (2022). Find iwi by local authority. **www.tkm.govt.nz/browse/**
- Statistics New Zealand (2021). Subnational population projections: 2018(base)-2048. stats.govt. nz/information-releases/subnational-populationprojections-2018base2048
- 8. Statistics New Zealand (2021). Subnational population projections: 2018(base)-2048. **stats.govt. nz/information-releases/subnational-populationprojections-2018base2048**
- Statistics New Zealand (2021). Subnational population projections: 2018(base)-2048. stats.govt. nz/information-releases/subnational-populationprojections-2018base2048
- Statistics New Zealand (2021). Subnational population projections: 2018(base)-2048. stats.govt. nz/information-releases/subnational-populationprojections-2018base2048
- Auckland Council (2021). Te Mahere Whanake Öhanga. Economic development action plan 2021-24. https://www.aucklandcouncil.govt. nz/plans-projects-policies-reports-bylaws/ourplans-strategies/topic-based-plans-strategies/ DocumentsEDAP/economic-development-actionplan-2021-24.pdf
- 12. Auckland Council (2021). Te Mahere Whanake Ōhanga. Economic development action plan 2021-24. www.aucklandcouncil.govt.nz/plans-projectspolicies-reports-bylaws/our-plans-strategies/topicbased-plans-strategies/DocumentsEDAP/economicdevelopment-action-plan-2021-24.pdf

- Auckland Council (2021). Te Mahere Whanake Öhanga. Economic development action plan 2021-24. www.aucklandcouncil.govt.nz/plans-projectspolicies-reports-bylaws/our-plans-strategies/topicbased-plans-strategies/DocumentsEDAP/economicdevelopment-action-plan-2021-24.pdf
- Auckland Council (2021). Te Mahere Whanake Öhanga. Economic development action plan 2021-24. www.aucklandcouncil.govt.nz/plans-projectspolicies-reports-bylaws/our-plans-strategies/topicbased-plans-strategies/DocumentsEDAP/economicdevelopment-action-plan-2021-24.pdf
- Reserve Bank of New Zealand (2018). Te Ohanga Māori 2018. www.rbnz.govt.nz/-/ media/0212182a319f481ea4427bcf5dd703df.ashx
- Reserve Bank of New Zealand (2018). Te Öhanga Māori 2018. www.rbnz.govt.nz/-/ media/0212182a319f481ea4427bcf5dd703df.ashx
- 17. Statistics New Zealand (2022). Imports for overseas cargo. nzdotstat.stats.govt.nz/wbos/Index. aspx?DataSetCode=TABLECODE7302
- Ministry of Business, Innovation & Employment (2020). Annual tourism spend grouped by TA, RTO, country of origin and product category.
   www.mbie.govt.nz/immigration-and-tourism/ tourism-research-and-data/tourism-data-releases/ monthly-regional-tourism-estimates/latest-update/ annual-tourism-spend-grouped-by-ta-rto-countryoforigin-and-product-category/
- Ministry of Business, Innovation & Employment (2020). Annual tourism spend grouped by TA, RTO, country of origin and product category. www.mbie.govt.nz/immigration-and-tourism/ tourism-research-and-data/tourism-data-releases/ monthly-regional-tourism-estimates/latest-update/ annual-tourism-spend-grouped-by-ta-rto-countryof-origin-and-product-category/
- Ministry of Transport (2019). National freight demand study 2017/18. www.transport.govt.nz/assets/ Uploads/Report/ NFDS3-Final-Report-Oct2019-Rev1.pdf
- Ministry of Transport (2019). National freight demand study 2017/18. www.transport.govt.nz/assets/ Uploads/Report/ NFDS3-Final-Report-Oct2019-Rev1.pdf
- 22. Auckland Transport (2020). Auckland freight plan. at.govt.nz/media/1983982/auckland-freight-plan.pdf

- 23. Auckland Transport (2019). Vision zero for Tāmaki Makaurau. at.govt.nz/media/1980910/vision-zerofor-tamaki-makaurau-compressed.pdf
- 24. Auckland Transport (2022). Auckland Transport monthly indicators report 2021/22. **at.govt.nz/ media/1989818/11-1-business-report-monthlytransport-indicators.pdf**
- 25. Auckland Council (2022). Auckland plan 2050. www.aucklandcouncil.govt.nz/plans-projectspolicies-reports-bylaws/our-plans-strategies/ auckland-plan/ Pages/default.aspx
- 26. Auckland Council (2022). Auckland plan 2050. www.aucklandcouncil.govt.nz/plans-projectspolicies-reports-bylaws/our-plans-strategies/ auckland-plan/ Pages/default.aspx
- 27. Ministry of Transport (2020). Te Whakakotahi i ngā Kaupapa Waka o Tāmaki, Auckland Transport alignment project. www.transport.govt.nz/area-ofinterest/auckland/auckland-transport-alignmentproject
- 28. Auckland Council (2022). Auckland plan 2050. www.aucklandcouncil.govt.nz/plans-projectspolicies-reports-bylaws/our-plans-strategies/ auckland-plan/ Pages/default.aspx
- 29. Ministry for the Environment (2022). Emissions reduction plan. environment.govt.nz/whatgovernment-is-doing/areas -of-work/climatechange/emissions-reduction-plan
- 30. Ministry for the Environment (2022). Emissions reduction plan. environment.govt.nz/what-government-is-doing/areas -of-work/climate-change/emissions-reduction-plan
- 31. Ministry of Transport (2020). Equity in Auckland's transport system summary report. www.transport. govt.nz/assets/Uploads/Report/ NZ3060\_Equity\_ in\_Auckland\_Transport\_System.pdf
- 32. Ministry for the Environment (2022). Emissions reduction plan. environment.govt.nz/what-government-is-doing/areas -of-work/climate-change/emissions-reduction-plan
- 33. Waka Kotahi NZ Transport Agency (2022). Crash analysis system. nzta.govt.nz/safety/partners/crashanalysis-system
- 34. Waka Kotahi NZ Transport Agency (2022). Crash analysis system. **nzta.govt.nz/safety/partners/crash** analysis-system

- 35. Waka Kotahi NZ Transport Agency (2022). Crash analysis system. nzta.govt.nz/safety/partners/crashanalysis-system
- Ministry of Transport (2019). Road to zero New Zealand's road safety strategy 2020–2030.
   www.transport.govt.nz/assets/Uploads/Report/ Road-to-Zero-strategy\_final.pdf
- Auckland Transport (2019). Auckland road safety programme business case. at.govt.nz/ media/1980866/item-911-road-safety-programmebusiness-case-att-2-at.pdf
- Waka Kotahi, NZ Transport Agency (2022). Research report 696 health and air pollution in New Zealand 2016 (HAPINZ 3.0) He rangi hauora he iwi. nzta.govt. nz/resources/research/reports/696/
- Waka Kotahi, NZ Transport Agency (2022). Research report 696 health and air pollution in New Zealand 2016 (HAPINZ 3.0) He rangi hauora he iwi. nzta.govt. nz/resources/research/reports/696/
- 40. Ministry of Transport (2020) Equity in Auckland's transport system. https://www.transport.govt. nz/assets/Uploads/Report/NZ3060\_Equity\_in\_ Auckland\_Transport\_System.pdf
- 41. Statistics New Zealand (2022). Subnational ethnic population projections: 2018(base –2043. **stats. govt.nz/information-releases/subnational-ethnic-population-projections-2018base2043**