

Arataki

Regional direction

Waikato

September 2023 v1.1

At a glance



Waikato has the fourth largest regional economy in Aotearoa New Zealand and is nationally important for a range of export-focused primary industries. It sits at the heart of the Upper North Island, with important economic connections to Tāmaki Makaurau Auckland to the north and Te Moana a Toi-te-Huatahi Bay of Plenty to the east. Over the next 30 years, the population of Waikato is expected to grow from about 500,000 to 615,000 by 2048.¹

The region’s transport network is vital to the country’s economic prosperity, linking people to key destinations and providing important freight access. SH1, SH29, and the East Coast/Main Trunk Lines between Tāmaki Makaurau and Tauranga are among the country’s busiest and most important freight corridors.

The metro area of Kirikiriroa Hamilton is the main urban centre for the region and where the fastest population growth is happening. This area includes the surrounding towns of Kemureti Cambridge, Te Awamutu, Ngāruawāhia, and Mōrena Morrinsville.

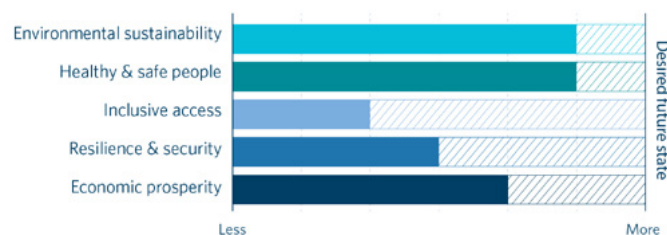
The Waikato region, including the metro area of Kirikiriroa, is highly dependent on vehicles. To address this and make progress towards reducing transport emissions, the following will be essential:

- joint spatial planning work
- rollout of high-quality cycling networks
- progressive implementation of aspirational public transport plans.

Waikato has a poor road safety record, with high rates of deaths and serious injuries requiring ongoing effort.²

Resilience must also be a key focus, with parts of the Waikato vulnerable to sea-level rise, flooding, coastal erosion, and landslides.

Scale of effort to deliver outcomes in Waikato



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.

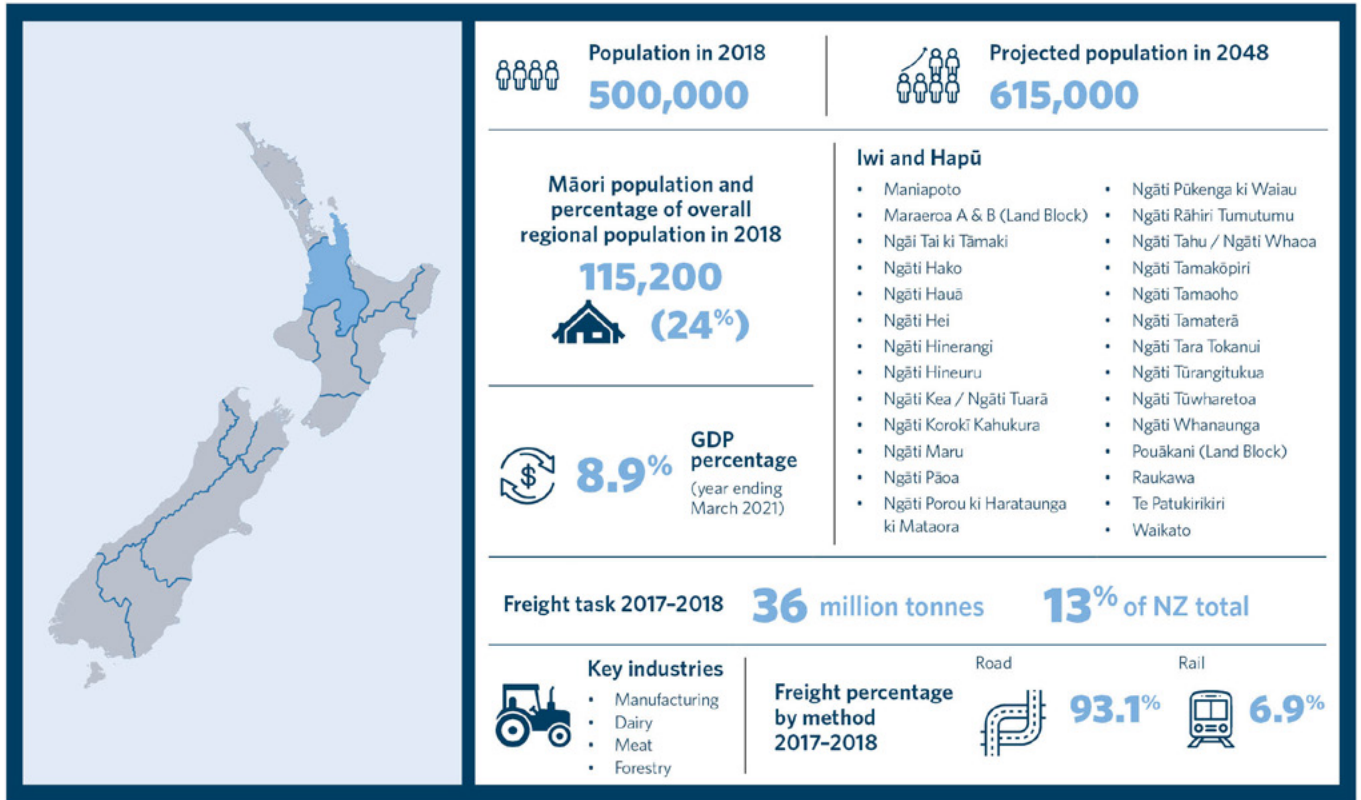
The rating assessments are based on evidence using system levels metrics. Further details are captured in the methodology document.

The September 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 Waikato* have climate-related updates.

Context



Waikato



The population of Waikato is expected to grow from 500,000 to about 615,000 by 2048, or 10% of the country's population.³ High growth is projected within Kirikiriroa Hamilton and surrounding towns; this area is already home to more than half the region's population.

The corridor from Kirikiriroa to Tāmaki Makaurau Auckland is expected to see significant population and employment growth. In recent years, the northernmost parts of Waikato have grown quickly because of spill-over growth from Tāmaki Makaurau. Future Proof is a partnership to help guide the future development of Kirikiriroa, Waipā District, Waikato District, and Matamata-Piako District.

Low growth, static, or declining populations are expected in the remainder of the region. This may slow down in the short-to-medium term, depending on the economic profile of each district. An ageing population is expected in the districts of Thames-Coromandel and Hauraki, so it will be important to ensure suitable transport options are available for older residents.

In 2018, 115,200 Māori lived in the Waikato, making up 24% of the region's population; this is higher than the national rate of 16.5%.⁴ Most Māori live in Kirikiriroa, where they make up 24% of the city's population.⁵

The iwi and hapū in the Waikato region are Maniapoto, Maraeroa A & B (Land Block), Ngāi Tai ki Tāmaki, Ngāti Hako, Ngāti Hauā, Ngāti Hei, Ngāti Hinerangi, Ngāti Hineuru, Ngāti Kea / Ngāti Tuarā, Ngāti Korokī Kahukura, Ngāti Maru, Ngāti Pāoa, Ngāti Porou ki Harataunga ki Mataora, Ngāti Pūkenga ki Waiau, Ngāti Rāhiri Tumutumu, Ngāti Tahu / Ngāti Whaoa, Ngāti Tamakōpiri, Ngāti Tamaoho, Ngāti Tamaterā, Ngāti Tara Tokanui, Ngāti Tūrangitukua, Ngāti Tūwharetoa, Ngāti Whanaunga, Pouākani (Land Block), Raukawa, Te Patukirikiri, and Waikato.⁶

Te Ōhanga Māori - The Māori Economy 2018 includes information for the Waikato rohe, which relates to the Waikato region. It notes the asset base is valued at \$11.5 billion.⁷ It is dominated by the primary sector, followed by other sectors, including property.⁸

Manufacturing, dairy, meat, and forestry will continue to be important across the region, along with aquaculture on the Te Tara-O-Te-Ika-A-Māui Coromandel Peninsula. The region's economy continues to be influenced by growth in Tāmaki Makaurau. Over time, employment in service industries will grow, particularly in the Kirikiriroa urban area.

When international travel was restricted because of the COVID-19 pandemic, there was an increase in travel demand to domestic visitor destinations. Travel to areas such as Te Tara-O-Te-Ika-A-Māui, Whāingaroa Raglan, and Taupō, help offset the decline in international visitors.

Severe weather events are already affecting the land transport system of Waikato. There were two severe weather events in 2023: the Auckland Anniversary Weekend floods in January and Cyclone Gabrielle in February. These events followed high rainfall in the region in 2022, so resilience thresholds were significantly lower. These combined factors meant landslip closures at multiple sites along SH25, SH25A between Kōpū and Hikuai, and SH23 between Whāingaroa and Whatawhata.

Because Waikato plays a central role in the country's supply chain, any deterioration to the resilience and efficiency of key freight networks has national implications.

The freight task in the Waikato in 2017–2018 was 36 million tonnes, or around 13% of the country's total.⁹ A total of 93.1% of the freight task tonnage in the Waikato was moved by road and 6.9% by rail.¹⁰

The region plays a nationally significant role in the country's supply chain, with 32% of the nation's freight movements going into, out of, or through the region by both rail and road.¹¹ Connections to Tāmaki Makaurau, Te Moana a Toi-te-Huatahi Bay of Plenty, Taranaki, and the Lower North Island are all nationally significant freight corridors. Pōkeno to Tauranga on SH2 supports local trips and is a key tourist journey to Te Tara-O-Te-Ika-A-Māui Coromandel Peninsula, Te Moana a Toi-te-Huatahi, and Hobbiton near Matamata.

Completion of the Waikato Expressway has improved safety and reliability. It allows the majority of north-south through traffic to bypass Kirikiriroa, reducing traffic on the urban networks. The Future Proof Strategy identifies Ruakura/Ruakura East, adjacent to the Expressway, as a strategic industrial node. This has enabled development of the Superhub inland port which takes advantage of the location on the strategic road and rail networks. Work on the Future Development Strategy will investigate the potential for further growth to the east of the Expressway in this location. This will take account of the need to maintain efficient interregional connections to the strategic transport networks.

The Te Huia train service is trialling interregional commuter rail, connecting Kirikiriroa and Tāmaki Makaurau. This service could play a key role in encouraging mode shift and vehicle kilometres travelled (VKT) reduction.

Waikato: Outlook

Over the next 30 years, significant transformation of the Waikato transport system is needed to address challenges and make sufficient progress on key transport outcomes.

The biggest change will be within the metro area of Kirikiriroa Hamilton, where the greatest share of the region's population growth is forecast. Here there's a significant need and major opportunity to improve access and safety while reducing emissions.

As high-growth urban areas, Kirikiriroa and north Waikato will continue to face infrastructure funding challenges to keep pace with growth.

In light of increased extreme weather events and other natural hazards, 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.

Low- or no-growth areas face different funding pressures; this is because as their populations age, the number of people on fixed incomes will also rise. This will make it more difficult to raise funds to:

- maintain existing networks
- deliver climate-friendly infrastructure 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

Waikato will need to make an important contribution to reducing carbon emissions, to reach the 2035 targets set in the government’s *Emissions Reduction Plan* and net-zero emissions by 2050.¹² This includes a target to reduce total vehicle kilometres travelled (VKT) by our light vehicle fleet by 20% by 2035.

Waikato has the second highest carbon emission profile in the country, with a significant proportion from interregional freight movement.¹³

As the main urban centre, Kirikiriroa Hamilton metro area presents the greatest opportunity to support national emissions reductions by providing alternative transport options and reducing the need to travel. This will require significant change to how people travel in a city focused on private car usage. Improving transport options and reducing traffic are not just important for meeting our climate commitments. They are vital for reducing congestion and making our transport system more safe, healthy, and inclusive for people of all ages and abilities.

Care is required to ensure efforts to reduce VKT don’t unfairly impact specific communities or groups.

We need to reduce freight transport carbon through:

- adopting lower-emitting fuels
- increasing mode share for rail.

The way Kirikiriroa grows, including surrounding towns, will need to be carefully managed to ensure it is supported by:

- public transport
- quality infrastructure for walking and cycling.

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 needs to continue to be treated to ensure water quality is improved 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 prioritise mode shift to public transport, walking, and cycling
- supporting progressive improvement of interregional passenger rail on the strategic connection from Kirikiriroa to Tāmaki Makaurau Auckland (H2A) Corridor Plan/ Te Huia
- continuing to support development and improvement of walking and cycling networks and infrastructure to enable safe, integrated, connected multi-modal networks; this should focus on access to and within the central city from supporting suburbs, key centres, and multi-modal transport hubs
- continuing to improve and prioritise public transport services
- exploring opportunities to use technology to deliver better services at lower costs
- managing carparking at major destinations and employment areas to increase use of public transport, walking, and cycling for trips to these locations
- ensuring appropriate standards, policies, and regulations are in place to reduce the impact of the region’s transport system on the local environment
- supporting the implementation of key policies, such as vehicle fleet transformation, public transport funding initiative, priced parking (demand-responsive), congestion charging, and zero-low emission zoning.

Healthy and safe people

Challenges and opportunities

Waikato has a particularly poor safety record, with 400 to 450 annual deaths and serious injuries on the region's roads during the past three years.¹⁴

There is a particular need to reduce:

- crashes at intersections
- run-off road and head-on crashes
- crashes involving vulnerable road users, like people walking or cycling
- speeding
- alcohol and drug impairment
- people not wearing seatbelts.¹⁵

Safety issues are worsened by the complexity of the network and high proportion of movement on the road network through and within the region.

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.¹⁶

Parts of the region, such as the Kirikiriroa Hamilton urban area, are suited to a significant increase in active modes because of the flat landscape and short overall trip lengths. However, levels of walking and cycling in Waikato 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.¹⁷

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 Waikato. 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, high-volume roads, and head-on crashes on high-risk rural roads – particular focus on SH2 Pokeno to Mangatarata and SH29 Piarere to Te Poi/Te Poi to Kaimai Summit
- targeting road policing and behaviour change programmes with a focus on alcohol and drug impairment, speeding, distracted drivers, 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
- 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.

Waikato has a particularly poor safety record, with 400 to 450 annual deaths and serious injuries on the region's roads during the past three years.

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:

- 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
- limited ability for people to travel in a way that best meets their needs because of poor travel choice.

Employment and essential services will likely be concentrated in Kirikiriroa Hamilton and Tāmaki Makaurau Auckland. Population growth outside these areas could experience increased trip lengths and reliance on private vehicles unless local services and employment opportunities are provided.

Rural communities need to access key centres for education, employment, and essential services. As the population of Waikato ages, travel needs will change; there will be a greater need to access health services, and less need to access education and employment.

An ongoing issue to be addressed is the conflict between heavy volumes of through-traffic versus safety, convenience, and disconnection (severance) in rural towns, like Tīrau and Putāruru.

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


Improved access to high-quality data and information will allow better management of the transport system to get the most from 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; this includes mixed-use development and the concept of a '20-minute city' aligned with key nodes along the rapid transit corridors and micro-mobility networks
- improving public transport service frequency and bus infrastructure (stops and crossing points)
- expanding on-demand services where appropriate
- exploring opportunities to improve the affordability of public transport for lower-income households
- continuing to support the development, expansion, and improvement of walking and cycling facilities so low-cost, sustainable, healthy travel options are safe and attractive for more journeys; this should focus on completing cycling networks in and around Kirikiriroa Hamilton and improving active mode facilities in smaller towns
- 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
- exploring how Te Huia train services can support interregional connectivity.



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Economic prosperity

Challenges and opportunities

The transition to a low-emissions economy may result in land-use changes, particularly for dairying, with flow-on effects for freight movement. Efforts must focus on supporting a productive and growing regional economy as this transition occurs, by continuing to provide reliable and resilient access to employment, education, and essential services.

Access to urban areas rely on long and increasing commuting distances – this won't help the region achieve low-emissions goals and VKT targets. Instead, urban areas should seek greater concentration of housing and look to grow industries outside of farming.

The region is strategically located in the Upper North Island and is part of the Golden Triangle (Tāmaki Makaurau Auckland, Kirikiriroa Hamilton, and Tauranga). This is important for the national economy by delivering safe, reliable interregional journeys, especially road and rail freight connections to key ports, including the inland rail ports and hubs of Kirikiriroa.

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

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

Efforts must focus on supporting a productive and growing regional economy while transitioning to low emissions which may impact on how land is used.

Technological change will have significant impacts on demand for travel and on the economy of Waikato. 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:

- investigating first- and last-mile freight solutions in key activity centres to meet and balance the needs for loading and servicing against low-emission zoning and targets
- completing and progressively implementing the *Hamilton-Waikato Metro Spatial Plan (MSP)* and integrated transport programme (including *Access Hamilton*); this includes ensuring long-term corridor protection to shape the city's future urban form
- 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
- progressing the Kemureti Cambridge to Piarere project to deal with safety issues where the Waikato Expressway ends; this includes an upgrade to the SH1/SH29 intersection
- 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, like being able to walk, cycle, or take public transport to work, school, or shopping areas in a safe and easy way.¹⁸

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.¹⁹

There are many high risks in the Waikato area related to landslips, erosion, flooding, and other weather factors. Key areas include:

- around Lake Karapiro
- Te Tara-O-Te-Ika-A-Māui Coromandel Peninsula
- low-lying areas in the Hauraki Plains
- SH3 link to Ngāmotu New Plymouth, particularly in low-lying sections like around Mōkau, and ice and snow along SH5 (Kaweka Ranges)
- the key link to Te Matau a Māui Hawke's Bay.

More than ever, there must be a greater focus on maintaining existing assets, 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-bikes 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 and options for alternate routes less likely to be disrupted
- 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.

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Kirikiroa Hamilton: Urban focus

Kirikiroa: The country's fourth largest city with a growing and diverse economy

The wider Kirikiroa Hamilton metropolitan area stretches from Taupiri in the north to Te Awamutu, Ngāruawāhia, and Kemureti Cambridge in the south. Around 270,000 people live in the area, which has seen steady growth in recent decades.

Historic growth of Kirikiroa has been largely through urban expansion. In the last 10 years this trend has shifted towards intensification (68%) rather than urban expansion (38%).²⁰ Greenfield growth (development of undeveloped areas) will continue to form part of the city's land supply but is expected to reduce over time.

Eighty-eight percent of trips in Kirikiroa are by private vehicle and people still make increasingly long trips to access jobs and essential services.²¹ This reflects:

- low population densities
- dispersed employment
- relatively low levels of congestion
- not providing adequate public transport services.

Of the current trips made in Kirikiroa, only 11.3% are by active modes and 1% by public transport.²² *The Hamilton-Waikato Metro Spatial Plan Business Case and Access Hamilton* outline a pathway to improving the availability of public transport in the city and wider metropolitan area.

Low usage of public transport in Kirikiroa reflects low-population densities, spread out employment, low levels of congestion, and a strong culture of car use. However, Kirikiroa is well positioned to increase active mode trips given its:

- scale
- distribution of employment, services, and education
- relatively flat terrain.

Kirikiroa is strategically located in the Golden Triangle between the cities and ports of Tāmaki Makaurau Auckland and Tauranga. It is a key freight hub and distribution centre for the Upper North Island, benefiting from the Waikato Expressway and the North Island and East Coast Main Trunk Lines. The North Island Main Trunk Line and East Coast Main Trunk Line provide key rail links from the metro area to Tāmaki Makaurau, Tauranga, and Te Upoko o te Ika a Māui Wellington. The Te Huia rail passenger service operates between Kirikiroa and Tāmaki Makaurau.

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Access Hamilton

Access Hamilton is the 30-year transport strategy for Kirikiriroa Hamilton.²³ It aims for a transport network that enables everyone to connect to people and places in safe, accessible, and smart ways.

The strategy outlines what the transport system of Kirikiriroa needs to become to serve the community's needs now and into the future; it also identifies where to focus efforts to achieve this.


Access Hamilton also explores:

- opportunities and challenges
- outcomes for the city's transport future
- the plan to get there.

The strategy guides investment decisions through long-term and annual plans. The initiatives that come from this strategy allow Kirikiriroa to work alongside their partners to deliver a city to be enjoyed for generations.

The vision for the future of transport in Kirikiriroa includes:

- Everyone is safe, and feels safe, while using the streets and public spaces.
- A low-emission transport system that is resilient against climate change.
- Kirikiriroa is a great place to live for everyone.
- A healthy Waikato River and natural sites that sustain abundant life and prosperous communities for all generations.
- More people choose to travel by foot, bike, bus, or use micromobility devices, such as scooters.
- Kirikiriroa is accessible for all because it has a city culture and heritage that is shared, protected, and celebrated.
- Kirikiriroa is a great place for everyone to work and do business.
- An adaptable, future-ready transport system that supports quality and compact urban form.



The initiatives that come from this strategy allow Kirikiriroa to work alongside their partners to deliver a city to be enjoyed for generations.

The Hamilton-Waikato Metro Spatial Plan

The *Hamilton-Waikato Metro Spatial Plan* (MSP) guides how the wider Kirikiriroa Hamilton metropolitan area will grow and develop over time.²⁴ It includes how this growth will happen alongside necessary infrastructure investment, including transport, to enable, support, and shape this growth.

The MSP outlines a vision for a significantly different urban future from recent trends. It anticipates 70% of growth will be in Kirikiriroa and 30% in the townships of Waikato and Waipa.²⁵ Half the growth is expected through intensification, or concentration, of existing urban areas; 50% will require expansion into Future Urban Areas.²⁶ Employment will be focused at nodes on easily accessible corridors moving people and goods.

Transformational change is proposed for the Ngāruawāhia to Ruakura corridor. As the city's core economic area, the MSP envisages the development of major mixed-use centres in Horotiu, Te Rapa, Frankton, and Kirikiriroa central city. In time, these centres would be supported by a rapid transit corridor from Ngāruawāhia and Ruakura, while frequent public transport services would link Kirikiriroa to Te Awamutu, Kemureti Cambridge, and other local growth nodes.

The MSP has four key directives for transport:

- offer a viable and attractive alternative to private vehicles by providing and expanding rapid, frequent, high-quality public transport networks
- plan and protect efficient freight network operations and interregional corridors
- connect transport and resident hubs, linking major growth centres by public transport and active modes
- plan and design neighbourhoods to make public transport use, walking, and cycling easy and attractive.

MSP is a starting point to direct focus, investment, and time to help Kirikiriroa deliver a radical transformational shift to a multi-modal transport network shaped around how communities will grow. MSP was not designed nor intended to meet or deliver on the emission and VKT reduction targets of Kirikiriroa. The scale and pace of the delivery of MSP needs to be coordinated alongside other strategies and plans for Kirikiriroa such as *Access Hamilton*, *Hamilton Urban Growth Strategy*, and the *Biking and Micro-mobility Programme Business Case* (and *Regional Public Transport Plan*).

Key challenges

Long-standing safety, travel time, and reliability issues in Kirikiriroa Hamilton remain important to address. There is also an increased urgency to reduce transport emissions and reshape the urban form of the Kirikiriroa metropolitan area.

Kirikiriroa has the country's highest rate of death and serious injury (DSI) involving pedestrians and cyclists, despite the city having overall lower DSI rates than other urban centres.²⁷

The Waikato Expressway now bypasses Kirikiriroa, freeing up capacity on the urban networks that can be used to support local journeys by sustainable modes. Future growth patterns will incentivise urban concentration to reduce vehicle kilometres travelled (VKT) and avoid peripheral car-based growth linked to the expressway. This will also help preserve the important national function of the Waikato Expressway.

Climate change

Urgency around climate change action and emission reductions has increased significantly in recent years. Larger urban areas, like Kirikiriroa Hamilton, provide the greatest opportunity to reduce transport emissions. Reduced traffic flows will achieve wider benefits such as better health, safety, congestion-relief, and quality of life. Kirikiriroa has the fourth highest transport emissions of the country's cities.

Reducing vehicle kilometres travelled (VKT) and overall emissions in a growing urban area like Kirikiriroa will require transformational change; this will be extremely challenging, especially given its car dependent urban form and legacy of past transport investments. Transformational change is required to:

- improve urban form
- offer better transport options
- manage demand for travel by vehicles.



The Waikato Expressway now bypasses Kirikiriroa Hamilton, freeing up capacity on the urban networks that can be used to support local journeys by sustainable modes.

VKT reduction planning will confirm what actions and scale are required to meet emissions reduction goals. Waka Kotahi will partner with local government, Māori, and community representatives to develop this work.

As one of the country's inland cities, Kirikiriroa won't be impacted by sea level rise like many other centres. However, it will likely be impacted by more extreme weather events, rising temperatures, and increased drought conditions. Some areas of the Waikato River are prone to flooding and have at times required the closure of cycleways in the city. It is expected more slips and closures will likely occur with high rainfall and more extreme weather events – this will place increased pressure on the transport system. Hamilton may experience migration from areas that are more affected by climate change, which will accelerate the growth of the city and contribute to the emissions-reduction challenge. Hamilton also has less exposure to earthquakes and volcanic activity.

Reshaping urban form in Kirikiriroa

A major shift in urban form in Kirikiriroa Hamilton is required to achieve the outcomes identified in the *Hamilton-Waikato Metro Spatial Plan (MSP)* and *Access Hamilton*. Moving from a historically vehicle-focused urban form towards one that's more compact and shaped around a multimodal rapid and frequent public transport network will mean a dramatically different urban future for Kirikiriroa. In this new urban form, most growth will occur in Kirikiriroa and there will be more of a focus on intensification, or concentration, of existing urban areas.

Future greenfield development (development of undeveloped areas) should:

- integrate with public transport and active modes networks
- contain a mix of activities and amenities to reduce the need to travel
- deliver at least medium-density residential development.

Making this shift will require all partners to work together to ensure a wide variety of investment, policy, behaviour change, and regulatory controls are applied; this will influence the way growth happens and the necessary transport interventions and activities to enable, support, and shape development.

Careful decision-making is required to sequence investment and balance competing factors such as:

- value for money
- transport infrastructure and services that lead urban form as well as shape the location and type of growth.



Waikato: Focusing our efforts

For efficient and effective progress, transport challenges in Waikato 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.

- Apply a multi-outcome approach to the delivery of programmes and planning. This includes principles such as fairness, equity, and safety.
- Begin to reduce vehicle kilometres travelled (VKT) 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 Island and to the west and east coasts.
- 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 that are dangerous to people's health.
- Use spatial planning work to support, enable, and encourage growth and development into 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.
- Implement transport components of the *Hamilton Waikato Metro Spatial Plan* and integrated transport programme; this includes protecting key corridors plus enabling and accelerating a step-by-step approach to potential future rapid transit corridors over time.
- Continue to improve interregional connectivity for people and freight, especially to Tāmaki Makaurau Auckland, Tauranga, and the Lower North Island; this includes ongoing upgrades to interregional passenger rail between Tāmaki Makaurau and Kirikiriroa Hamilton.
- 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 more multi-modal freight system with greater use of rail.
- Confirm how resilience risks will be addressed over time, and work with communities to plan for when to defend, accommodate, or retreat.
- Continue to implement road safety plans and programmes including those focused for iwi Māori.
- Reduce financial and other barriers to iwi Māori getting a driver's licence in areas not well served by public transport.
- 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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