

# Vision Zero for Tāmaki Makaurau

A TRANSPORT SAFETY STRATEGY  
AND ACTION PLAN TO 2030

**DRAFT**



# A word from the Tāmaki Makaurau Road Safety Governance Group

We have a transport safety problem.

Together with political and transport leaders, we have vowed to stop this human sacrifice to mobility. Safety has been made the top priority as we create the future transport system for Tāmaki Makaurau. We're placing human wellbeing and liveability, for all, at the heart of our transport network.

We have an ambitious new safety vision that states there will be no deaths or serious injuries on our transport system by 2050. Together with our partners, we're making this a reality by moving to a world-class city, offering rapid public transport and healthy active lifestyles, with attractive walking and cycling spaces. More travel will be on foot, by bike and on public transport. We will enhance our chance of a sustainable transport future for the following generations.

This is a huge challenge, but no one should expect to be injured or killed when travelling around our beautiful city. When we step outside, we must feel safe and confident about our journey ahead.

Our safety vision is part of a wider safety strategy

designed to greatly reduce transport events that cause human suffering. The safety strategy acknowledges that people are vulnerable and will make mistakes, so we must make sure that when these mistakes happen no one is killed or seriously injured. Internationally this is called Vision Zero and it is referred to as the benchmark for transport safety.

Vision Zero puts people first. It is based on the principle that it isn't acceptable for people to be killed or seriously injured when using the transport network. It doesn't mean that there will be no crashes, but when crashes do occur the transport system has been designed so people survive and aren't seriously injured.

To reach our target of no deaths or serious injuries by 2050, we need every person to play their part. The responsibility is shared by everyone including those who design, build and use our transport network. Together we can all make moving around Tāmaki Makaurau a great experience, where everyone returns home safe and well.

This Strategy and Action Plan is overseen by the  
Tāmaki Makaurau Road Safety Governance Group:





## A word from Auckland Transport

Aucklanders travel just over 15 billion kilometres by private vehicle and almost one billion kilometres by public transport every year. Sadly, Auckland's road safety record has been deteriorating in recent years and now is the time to act to reverse this trend.

Auckland aspires to be a liveable and equitable city. Vision Zero for Tāmaki Makaurau follows the direction laid out by the Auckland Plan 2050, providing a safe transport network, free from death and serious injury. It aims to protect people both outside and inside vehicles.

To attain this aspiration, we're going to be making big shifts in how we think about, talk about and use transport in our city and region. Transport policy choices between the 1950s and the turn of the century have meant that Aucklanders are more reliant on cars than almost anywhere else in the world. This is not sustainable and more and more of us need to switch to buses, trains, ferries and other active and personal mobility modes over time to mitigate the pressure of growing congestion, emissions, growth, public health impacts and, of course, safety. For our aspiration to become a reality our region must be safe to

move around regardless of what transport mode people use.

Auckland will be a region where people are safely connected to mobility options like public transport, walking, cycling and other personal transport devices, as well as vehicles. We'll make this happen by prioritising people's safety above other benefits.

People are at the heart of Vision Zero for Tāmaki Makaurau. We're committed to improving Māori safety outcomes across our transport network through AT's flagship programme, Te Ara Haepapa. The design and delivery of Te Ara Haepapa, which takes a Treaty of Waitangi and Te Ao Māori approach, will create the step change required for improved Māori transport safety outcomes and wellbeing.

To deliver on Vision Zero for Tāmaki Makaurau we need Aucklanders to support Vision Zero's approach of valuing every life. Zero deaths and serious injuries is both desirable and achievable. Together we can make Auckland's transport system safe for everyone.

**Shane Ellison**  
Chief Executive  
Auckland Transport



## A word from our Police



Our mission is to be the safest country. We do this through making New Zealand a safe place to live, work, travel, and visit.

One of the greatest risks our community faces every day is on our roads and roadsides. Here, tragically we see lives being lost or forever changed through the consequences of drivers not putting the safety of themselves, their passengers, and fellow road users first. We know that excessive speed, inattention, impairment, failing to give way or stop, and not wearing a safety belt are the most common behaviours that lead to people either being killed or having life changing injuries.

NZ Police are proud to be part of the vision to eliminate death and serious injuries from our transport network and make Tāmaki Makaurau a safer place.

Police in Tāmaki Makaurau have a significant role to play in keeping our roads and communities safe. We're dedicated to making sure

everyone who travels across the transport network is safe and protected.

We're focusing our efforts on preventing harm by doing what we can to reduce high-risk behaviours, but we can't do this alone. We're partnering with road controlling authorities, community groups, iwi, schools, and road users. And we need every driver, rider, and pedestrian to keep themselves and the other road users around them safe; by choosing to be safe and responsible every time they are on the road.

Together with our partners, Tāmaki Makaurau, we'll achieve our Vision Zero goal.

**Superintendent Naila Hassan**  
District Commander  
Waitematā District, NZ Police

## A word from our health sector

How we move around the city directly affects our health. Vision Zero is an opportunity to improve health in two ways; firstly through preventing serious injuries from crashes, and secondly by making it safer for people to be more active.

Our hope is that this commitment to better road design, policy, behaviour change and enforcement will keep motorists, cyclists and pedestrians out of emergency departments and operating rooms.

But beyond this it holds a greater promise to make our communities healthier. Making walking and biking safer and more attractive means Aucklanders could be active every day. Regular activity is good for just about every part of our bodies and our minds too.

Safer, healthier transport will improve the lives of those most at risk; Māori and those

in deprived areas. People who travel the furthest, can't afford the safest cars or have to walk beside busy traffic are most likely to die or be injured on the road.


If we can prevent traffic crashes and encourage people to get moving on foot, scooter or bike, we will save lives, improve equity and free up health dollars too.

We look forward to being part of Vision Zero, reshaping Auckland to be safer and healthier.

**Ailsa Claire OBE**  
Chief Executive  
Auckland District Health Board

**Dr Julia Peters**  
Clinical Director  
Auckland Regional Public Health Service





# Tāmaki Makaurau, Tāmaki herenga waka, Tāmaki herenga tangata

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# A strategy with Vision Zero at its heart



By 2050, we aim to eliminate transport deaths and serious injuries (DSI) in Tāmaki Makaurau. To achieve this vision, we are embracing the principles of Vision Zero.

Our transport safety strategy applies Vision Zero to all modes of transport: bus, train, ferry, walking, cycling, motorcycling, driving and micro-mobility. We believe that whatever method of transport you use, you have the right to return

home safely. However, in 2018, 58 people died and more than 595 were seriously injured while using our transport network.<sup>1</sup>

We want to get these and other transport serious injury numbers to zero. To achieve this, we have formed a partnership with people across Tāmaki Makaurau who care deeply about safety and want liveability and wellbeing to be at the heart of our transport system. Together, we have prepared this transport

safety strategy and action plan as our guiding map on how we will actively work together to make this a reality for Auckland communities.

This transport safety strategy and action plan is aligned with existing Auckland and New Zealand strategic documents. It has been developed to focus on safety in order to address the road safety crisis identified in the 2018 AT Road Safety Business Improvement Review.<sup>2</sup>

# The Treaty of Waitangi and Vision Zero

We recognise our obligations under the Treaty of Waitangi and implement these through practical actions. We are committed to transforming Māori transport safety outcomes under Article 2 of the Treaty of Waitangi.

We take our Treaty of Waitangi commitments seriously, as our ability to implement these obligations will define our relationship with Māori. A step change through Vision Zero is required to ensure improved transport safety outcomes and wellbeing for Māori in the Tāmaki Makaurau region.

This strategy takes a Treaty based approach, grounded in Te Ao Māori (Māori World View) to improve safety outcomes for Māori and wellbeing across

the transport network in Tāmaki Makaurau.

There is much work to do in developing a true Treaty partnership. The current Tāmaki Makaurau Governance structure is not reflective of a true Treaty partnership. It is not within the mandate of the existing organisations in this structure to provide a Māori perspective or speak on behalf of Māori within this region. This can only be provided by Mana Whenua representation and by nominated Mataawaka authorities and participation from Māori.

This is identified as a priority in our action plan.

## Treaty of Waitangi and Vision Zero approach

### Partnership

Build relationships and work with whānau, hapū, iwi and hapori Māori to co-design strategies to improve Māori transport safety outcomes. Provide for Māori in decision-making and leadership in transport outcomes.

### Protection

Ensure equitable outcomes for Māori. Māori cultural concepts, including te reo Māori me ona tikanga and Māori values are recognised and safeguarded.

### Participation

Involve Māori participation and decision-making at all levels including governance. Design, fund and deliver Māori led transport safety programmes to improve Māori outcomes. Monitor and evaluate Māori safety programmes.

<sup>1</sup> 58 transport deaths includes 54 road deaths, 3 deaths involving a train and 1 public transport occupant death. 595 is the number of road serious injuries from the Crash Analysis System, total transport serious injuries are expected to be significantly higher.

<sup>2</sup> Howard, E, Road Safety Business Improvement Review for Auckland Transport - Whiting Moyne (May 2018)

# What is Vision Zero?

“Human life should not be traded for other benefits in society”

Claes Tingvall, Vision Zero founder

Vision Zero is an ethics-based transport safety approach developed in Sweden in the late 1990s. It places responsibility on people who design and operate the transport system to provide a safe system.

We want a transport system that prioritises safety, not a system that puts other measures ahead of human life and limb. We will get you there safely, as efficiently as we can. This is a shift from thinking we will get you there quickly, as safely as we can.

## Vision Zero Principles



### Ethics

People shouldn't die or be seriously injured in transport journeys.



### Responsibility

**System designers** are ultimately responsible for the safety level in the entire system - systems, design, maintenance and use. **Everyone** needs to show respect, good judgement and follow the rules. If injury still occurs because of lack of knowledge, acceptance or ability, then **system designers** must take further action to prevent people being killed or seriously injured.



### People centered

System designers must accept that people make mistakes and people are vulnerable.<sup>3</sup>



### System response

We need to look at the whole system and develop combinations of solutions and all work together to ensure safe outcomes.<sup>4</sup>

# How Vision Zero builds on the Safe System approach

The Safe System approach says while we all have a responsibility to make good choices, we're human and we make mistakes. This means, we need to build a more forgiving system that protects people from death and serious injury when they crash. Vision Zero and the Safe System have often been applied just to the road system where the majority of harm occurs. In this strategy, the principles are applied to all modes of transport.

A Safe System is created when system designers design safe speeds and infrastructure, and there are safe vehicles and users.

## Vision Zero strengthens the Safe System through:

- An explicit values-based or ethical position stating no one should die or be seriously injured while using the transport system
- An ambitious commitment to continuously work towards eliminating all transport deaths and serious injuries - no death is acceptable
- A changed mindset among system designers, in Sweden this concept is stated as: "In every situation a person might fail, the transport system should not."



<sup>3</sup> Europe and its road safety vision - how far is zero? Claes Tingvall at the 7th European Transport Safety Lecture (2005)

<sup>4</sup> Vision Zero 20 Years On, Hanna Lindberg (April 2017)

# Making Vision Zero a reality

**By 2050, we aim to eliminate deaths and serious injuries on the transport network in Tāmaki Makaurau. To achieve this vision, as a group of partners we are embracing the essential elements of Vision Zero. Here is what that will look like for Tāmaki Makaurau.**

## Designing safe places for people

Vision Zero will come to life by putting the tangata at the centre of our transport system. We will do this at the early planning stage and throughout the design and operation of the transport system.

The general principles of safe design and operation are known. Yet, because Vision Zero is a new approach in Tāmaki Makaurau, we are still building local evidence for proven safe interventions and programmes.

## Now and into the future.

Vision Zero means as partners we'll work together to each play our role.

To make higher speed rural roads safer, we'll introduce **median and side barriers**.

These prevent cars from running into oncoming traffic and losing control. Flexible barriers absorb much of the force in a collision, reducing the impact to the human body and allowing the vehicle to come to a gradual standstill. In other parts of Aotearoa, median barriers have reduced head-on collisions by 92 percent and deaths and serious injuries by 67 percent.<sup>5</sup> We're currently building flexible median and side barriers as part of the Dome Valley safety improvements.

Our urban transport system will be built and operated for people. You will be able to easily access **public transport** that's convenient and frequent and already the safest mode of urban travel. Since January 2018 we've installed 19 **automatic pedestrian crossing gates** at rail level crossings.

We've also trialled real time **driver fatigue and distraction detection** on our buses that



monitor driver wellness and can alert drivers and the depot.

To make ferry boarding safer, since 2017 we've made it easier for passengers to wait on the stationary part of ferry wharves and put **slip resistant marine flooring** on gangways and pontoons.

You'll be able to enjoy more spaces designed for walking and cycling. Parents can feel more confident about their children **walking or cycling to school**. Research in 2015 demonstrated a 37 percent reduction in school aged walking/cycling deaths and serious injuries for 20 schools with **electronic school speed zones** and Travelwise programmes, compared to 20 control schools.<sup>6</sup>

Around the region, **raised pedestrian crossings** will protect you as you cross the road, like the one now on Sandringham Road near Ethel Street.

When riding your bike, you'll enjoy **protected cycle lanes** that have curbs or physical barriers, like the one along Quay Street. We'll conduct motorcycle safety trials such as **electronic warning signs** for turning



vehicles and explore ways to work collaboratively with the Motorcycle Safety Advisory Council.

We'll make intersections much safer. **Roundabouts** slow motorists and direct traffic in one direction to reduce conflict points and forces. If there is a crash, the impact speed and angle of the collision is less severe than with a side-impact crash. Because well designed roundabouts are a safe intersection treatment,<sup>7</sup> you'll see more in urban and rural areas; small, low profile roundabouts designed for slow speeds and some bigger ones with separate, protected cycle spaces.

You see **urban roundabouts** in operation now on Franklin Road in Freemans Bay, and in Wynyard

<sup>5</sup> Draft Standard Safety Intervention Toolkit, NZ Transport Agency (February 2019)

<sup>6</sup> Road Safety Promotions Evaluation Report, Auckland Transport (2015-16)

<sup>7</sup> Austroads, Towards Safe System Infrastructure: A Compendium of Current Knowledge (2018)







Quarter. The **rural roundabout** on the way to Glenbrook and Kingseat, in the Franklin area, was Aotearoa's most dangerous intersection but there have been no deaths or serious injuries since it was built in 2014.<sup>8</sup>

Another option is **safer signalised intersections**. This can be designed to lower speeds or restrict unsafe movements, such as at Great North Road and Bullock Track.

**Speed management** is central to achieving Vision Zero. This means infrastructure and speed limits need to reflect the true risk of the road. We'll work closely with Police on enforcement and use more **automated technology** to help reduce the risks for everyone.

30km/h speed limits have been successful in our city centre. In Wynyard Quarter, between

2012-2017, there was an average of one death or serious injury a year - this has been zero since the 30km/h speed zone was introduced. On Queen Street, there's been 36 percent reduction in deaths and serious injuries since 30km/h speeds were adopted in 2008.<sup>9</sup>

This includes introducing safety improvements on some of our busiest arterial roads, such as the **raised table intersections** on Great North Road in New Lynn. These have achieved zero pedestrian serious and fatal injuries since they were installed in 2013, an area where pedestrian traffic injuries were high in the decade before.<sup>10</sup>

You'll also find it easier and safer on rural roads because **smarter signs and road lines** will indicate the appropriate speed to drive for the conditions. **Wider centre lines and road shoulders** will give drivers more space to recover, while **rumble edge lines** will grab driver attention when fatigued or distracted.

In addition, we'll support work to have more **five-star safety rated vehicles** with

features like airbags and automated braking systems which are far safer than older cars on the roads. We'll lead by example with safe procurement of vehicles and safe policies for our own corporate fleets.

For many commercial drivers, like sales reps, tradies and truckies, vehicles are a place of work. Businesses will make sure **safe fleet management** and travel planning is common practice through policies, technology and procurement.

We'll continue to grow and share **best practice knowledge about staying safe** for everyone using our network; whether it's by motor vehicle, bike or public transport. We'll run **education programmes** to emphasise safe behaviour like wearing seatbelts, complying with give way rules, driving sober and alert, and reducing distractions.

Where safe behaviours need enforcing to save lives across the wider system, we'll work together on **safety campaigns**. As an example, working with Police on red light running campaigns, including safety



cameras, has helped with the significant drop in injuries from this type of crash from 2017 to 2018.

We will make more use of **safety management tools** to identify where we have the highest risk, like the Urban Kiwi Road Assessment Programme (Urban KiwiRAP) mapping tool for safety at a planning level, and the Safe System Assessment Framework for selecting the right engineering treatments. We'll also work to influence safety **legislation and policy** as appropriate.

Many urban arterials are indicated as high risk for a range of vehicle and active mode users, so there will be a range of new approaches in these locations. Many rural roads are high risk and have a different range of solutions. Not all communities are equal, so extra effort will be made to provide high-risk communities and age groups with **safe transport**.



<sup>8</sup> Crash Analysis System and Urban KiwiRAP Risk Assessment (2014)

<sup>9</sup> Road Safety and Safe Speed Programme, Auckland Transport (2018-19)

<sup>10</sup> Crash Analysis System, NZ Transport Agency (June 2019)

# Te Ara Haepapa

## The journey to pave a better future for Māori on our roads

The 2013 Census identified that approximately 25 percent of all Māori in Aotearoa live in Tāmaki Makaurau. This consists of those who whakapapa to the region through their hapū and iwi (Mana Whenua) and those who have whakapapa ties from elsewhere (Mataawaka).

A Vision Zero strategy for Tāmaki Makaurau will enable whānau, hapū, iwi and hapori Māori (Māori community) to move around the region safely, providing better futures for rangatahi Māori (Māori youth) and all Māori.

Success in this area will mean sustainable resourcing of Māori designed and led programmes. There will be true and appropriate representation of Māori at all levels of leadership and decision making on transport safety in Tāmaki Makaurau.

Te Ara Haepapa is a holistic Māori designed and led programme by Auckland Transport to address the high Māori road fatalities and serious injuries on ngā rori o Tāmaki Makaurau (Auckland's roads).

The programme adopts a Treaty of Waitangi and Te Ao Māori approach to design and delivery. It is aligned to high level Māori outcomes identified in the Auckland Plan.

Introduced in 2016, its reach into hapori Māori - whānau, marae, hapū, kohanga reo and kura kaupapa Māori-is significant. Innovative Māori social media approaches bringing stories that engage and connect with Māori and road safety themes were highly successful.

# Approach

## Te Ara Haepapa Vision alignment

Mana Whenua and Mataawaka participation and partnership in design and delivery

Te Ara Haepapa delivers safety and behavioural programmes to whānau, hapū, iwi and hapori Māori

Te Ara Haepapa Programme designed and delivered by Māori for Māori through te reo Māori me ona tikanga

## Treaty of Waitangi principles and Te Ao Māori

Rangatiratanga/Autonomy  
Kaitiakitanga  
Treaty of Waitangi principles of partnership and participation

Whanaungatanga  
Treaty of Waitangi principle of partnership

Manaakitanga  
Rangatiratanga  
Treaty of Waitangi principle of protection

## Māori outcomes (Auckland Plan)

Supporting Māori identity and wellbeing by advancing rangatiratanga in leadership and decision-making

Strengthens Māori cohesion  
Support through Māori collective social structures  
Whānau centric modelling in design and delivery

Supporting Māori identity and wellbeing  
Valuing te Ao Māori according to customary norms



# The wider benefits of a Vision Zero network

“More Aucklanders will walk, cycle and use public transport if it is accessible, efficient, affordable, reliable, safe, and attractive”

Auckland Plan 2050

Globally, it's recognised that sustainable health and wellbeing goals can't be achieved without people feeling and being safe while travelling.<sup>11</sup> In Aotearoa, the Ministry of Transport's Outcomes Framework<sup>12</sup> identifies the purpose of the transport system as improving wellbeing and liveability. The framework links five core outcomes: inclusive access, healthy and safe people, environmental sustainability, resilience and security, and economic prosperity.

In Tāmaki Makaurau, the Auckland Plan 2050 has a transport and access focus area to make walking, cycling, public transport and other personal mobility devices preferred choices for many more Aucklanders. It also acknowledges that our transport system creates unacceptable levels of harm to people and the environment. Currently road transport is the largest source of greenhouse gas emissions in the Auckland region, contributing 35 percent.<sup>13</sup>

This transport safety strategy emphasises actions to address these focus areas through improving the current public transport network and the role of long-term land use planning, to achieve a future Vision Zero network.

We will be guided by the Roads and Streets Framework (RASf) and the Urban Streets and Roads Design Guide (USRDG). Together the Framework and the Design Guide encourage a multi-modal Vision Zero approach, from land use planning to street design. A Vision Zero network is about safety for all modes. This includes the most vulnerable road users, people travelling by foot or on two wheels. When people feel safe walking and cycling, more people will choose active modes and public transport.

Enabling land use planning and high quality public transport can also increase public transport journeys. With the goals of a zero emission bus fleet and a Vision Zero transport system more public transport journeys means a network that's safer for people and our environment. Safety can help reach other transport goals such as efficient use of space, health, accessibility and sustainability.

<sup>11</sup> Recommendations for 2nd Decade of Action for Road Safety, Academic Expert Group (July 2019)

<sup>12</sup> Framework for shaping our transport system: Transport outcomes and mode neutrality, Ministry of Transport (2018)

<sup>13</sup> Taking Charge: Transitioning Buses from Diesel to Zero Emission, Auckland Transport (2019).

## The Roads and Streets Framework:

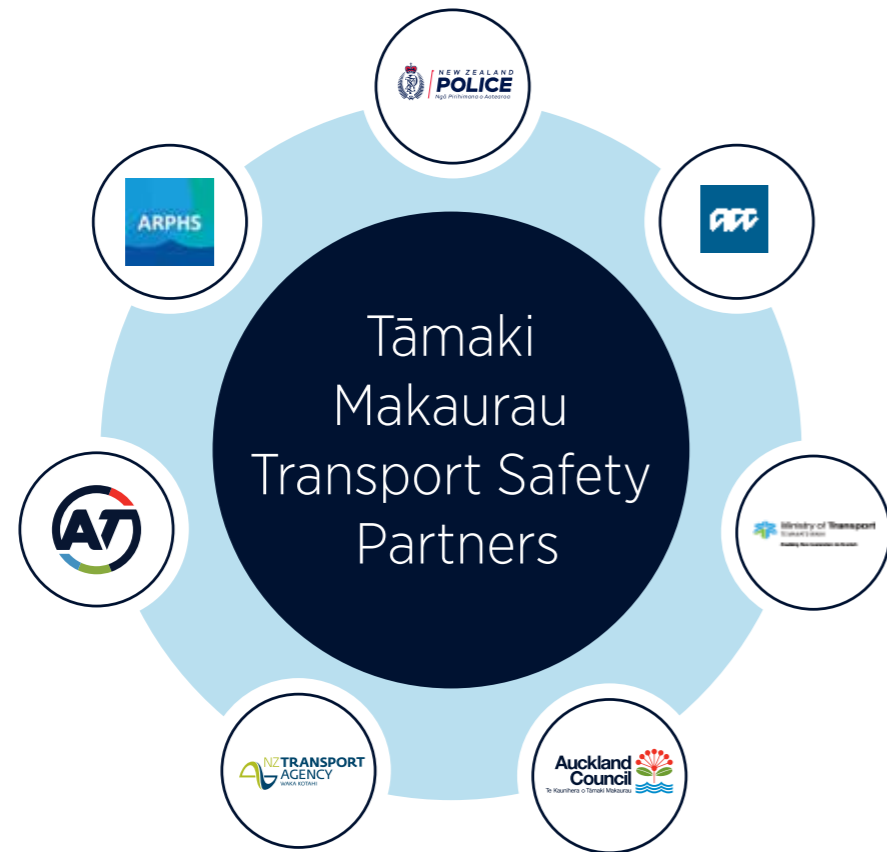
- identifies three levels of movement and three levels of place to create nine street types
- outlines the relative priorities for all transport modes within each street
- provides guidance on what level of service should be provided and helps identify and resolve modal conflict
- recommends prioritising high risk areas at the planning stage using the Urban KiwiRAP risk mapping tool
- includes other tools to highlight high risk urban areas for vulnerable road users.

## The Design Guide follows with:

- guidance, principles and technical requirements for safe outcomes at a project level
- examples of design for each type of urban street and intersection (further guidance on rural road types and intersections will be developed)
- showing how Vision Zero fits readily into urban placemaking, while outlining the core elements necessary for safety in road design, such as survivable impact speeds
- Vision Zero infrastructure design that puts emphasis on features to encourage attentive and safe travel behaviour, so safe options and decisions are easy and natural.



## Partnering for success



The success of our strategy will be built on strong partnerships and stakeholder relationships across core government agencies, Mana Whenua, road user groups, communities, industry and businesses. The Tāmaki Makaurau Governance Group, shown above, will coordinate our strategy delivery.

Our vision of zero deaths and serious injuries by 2050 is ambitious but together we can all play our part. The responsibility for its success is shared by everyone throughout the transport sector and the community.

One action in the first action plan is to explore appropriate public transport safety representation in this governance structure.

Through the development of the Vision Zero strategy we have identified that the current Tāmaki Makaurau governance structure for managing road safety in the region does not support a treaty partnership and participation approach.

A key priority in our first action plan is to ensure that there is true and appropriate participation in decision making and leadership from Māori on transport safety outcomes in Tāmaki Makaurau.

## About our partners

### Police

Police play an important part in helping to make our roads safer. Road safety is achieved through more than enforcement alone and requires a strong focus on prevention activities alongside road safety partners. This is done by taking every opportunity to prevent harm as well as enforcing road policing laws, including alcohol and speed regulations, promoting good driving practices and road safety education.

### Accident Compensation Corporation (ACC)

ACC promotes injury prevention and provides rehabilitation and compensation to people who are injured, so that they can return to normal life as quickly as possible. ACC works across Government and with partners and communities to deliver injury prevention programmes through councils, community organisations and other agencies, and rehabilitating crash victims.

ACC has access to unique data and resources that support agencies and organisations to focus their efforts in the right areas and on the most effective

programmes. ACC focuses on programmes to teach new drivers, motorcyclists and people on scooters how to be safe on the road.

### Ministry of Transport (MoT)

MoT is the Government's principal transport adviser. It helps Government give effect to its policies by supporting the development of legislation, regulations and rules, including developing the National Road Safety Strategy, The Road to Zero.

### Auckland Council

The Auckland Council model of local government helps meet both regional and local needs. The Council has a two-tier governance structure comprising the governing body and the local boards. The organisation provides Tāmaki Makaurau with the resources to meet population growth and related development. It is responsible for regulatory functions and the delivery of local public services.

### Auckland Transport (AT)

AT is the council-controlled organisation of Auckland Council responsible for transport projects and services. It is the

lead agency for the Vision Zero strategy, monitoring delivery and leading development of future action plans.

### Auckland Regional Public Health Service (ARPHS)

Auckland Regional Public Health Service's role is to protect health, prevent disease, reduce inequities and promote wellbeing for the people in the region. The ARPHS serves the population covered by the Auckland, Counties Manukau and Waitemata District Health Boards. The service works to control the spread of infectious diseases and promote safe environments. It also supports changes to Tāmaki Makaurau's neighbourhoods so people can eat well, be physically active and safe, and avoid harm from alcohol and tobacco.

### NZ Transport Agency

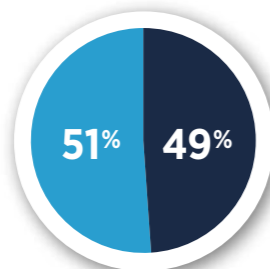
The NZ Transport Agency is a Crown entity responsible for planning and investing in land transport networks, delivering road safety education campaigns, managing the driver licencing system, managing the crash analysis system and managing the state highway network.

# Vision Zero conversations

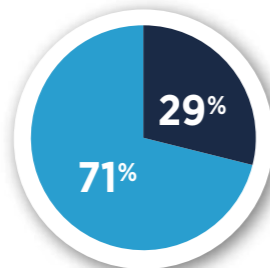
In 71% of serious injury crashes a system failure, not any reckless behaviour, was the cause of the crash

## Reckless behaviour and system failure in fatal and serious crashes<sup>14</sup>

- System failure
- Reckless behaviour



Fatal crashes



Serious injury crashes

### The need to strengthen all parts of the system

In the past, blaming safety problems on bad or reckless drivers has been one way of thinking. A 2018 study from the AA Research Foundation challenged these perceptions and found many crashes do not involve any extreme behaviour.<sup>15</sup>

This study found that in around three quarters of New Zealand crashes, where vehicle occupants were seriously injured, drivers were generally following road rules, but they made a mistake or a poor decision, or something unexpected happened. This is consistent with similar studies in Australia and Europe. For fatal injury crashes, there's an even split between reckless behaviour and system failures. This suggests that we can significantly reduce serious injuries on our roads by improving the whole safe system as well as by stopping extreme behaviour.

The same research shows that there are often multiple system failures for serious crashes. Fatal crashes are more likely to result from failures in all four categories of speed, roads and roadsides, vehicles and users. Strengthening the system by creating layers of protection will help counter harder to control failures in one area, allowing the system to fail safely.

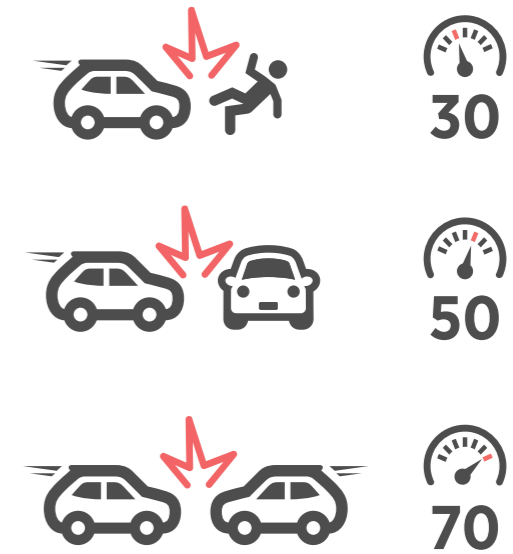
# Creating a forgiving system

Managing vehicle speeds or energy on the network is central to achieving Vision Zero. Speed causes some crashes and determines the severity of every crash - energy increases much faster than the number on the speedometer. This isn't easy for people to feel instinctively while driving, however modern transport exposes us to crash forces far greater than our bodies have evolved to survive.

People are vulnerable to crash forces. If a pedestrian is hit by a car at 30km/h without protection, there is a 10 percent risk of death, at 50km/h that risk of death increases to 80 percent.<sup>16</sup> Drivers have some protection in their vehicle but they still have a 10 percent risk of dying if hit from the side at 50km/h, which is a common speed for our urban intersections and driveways. For head-on crashes there is a similar risk of dying at 70km/h. Many of our rural roads provide no protection from a vehicle that mistakenly drifts over the painted centreline into the opposing lane, which can lead to death or serious injury.

Speed management uses engineering to provide protection at high speeds or ensure that survivable speeds are readily and easily chosen for the right environment. This is called self-explaining roads. Safe speeds are a key way of reducing the risk of dying or being seriously injured in urban areas where there are many people, including children and the elderly, walking and crossing.

### Survivable impact speeds for different crash types



<sup>14</sup> Crashes may contain more than one death or injury, and more than one level of injury severity  
<sup>15</sup> Serious Injury Crashes: How do they Differ from fatal crashes? What is the nature of injuries resulting from them? Mackie, Research for AA Research (2017)  
<sup>16</sup> Research Report AP-R560-18, Austroads - the Association of Australian and New Zealand Road Transport and Traffic Authorities (March 2018)

## Transport safety as an equity issue

Children under 14 don't drive nor make many of their travel choices. Yet they make up five percent of all deaths and serious injuries in a system unforgiving of mistakes made by them or their guardians

We're concerned that some communities and groups of people are more at risk on our transport network. Globally, people living in lower-income communities experience greater levels of traffic injury. Auckland research<sup>17</sup> shows people living in lower income areas have a significantly higher risk of experiencing road traffic injuries, particularly young adults, children and the elderly.

In Tāmaki Makaurau there is an over-representation of people living in urban south, urban west and rural areas who die or are seriously injured on our roads. Children living in the most socio-economically deprived areas have a three times higher injury rate than children living in the least deprived areas. This is also higher for Māori and Pacific children in these communities.

Senior citizens aged 70 years and over have the highest rate of walking-related deaths and serious injuries per capita because they are physically vulnerable and have limited transport choices. A successful Vision Zero transport network is most evident in cities where both children and the elderly are provided with safe mobility choices.

Māori residents in Tāmaki Makaurau experience a significantly higher risk of road traffic injury than any other ethnicity group at all ages. For example, past research found that Māori children experience 65 percent higher road traffic injury risk than children in the other ethnicity groups.<sup>18</sup>

We recognise that we are at the beginning of the journey for improved equitable outcomes for Māori and these issues are wider than the data that we currently have. We have prioritised work in our action plan to ensure that Māori deaths and serious injuries are greatly reduced.

<sup>17</sup> Social and Geographical Differences in Road Traffic Injury in the Auckland Region, Hosking, Ameratunga, Exeter and Stewart, School of Population Health, University of Auckland (2013)

<sup>18</sup> Social and Geographical Differences in Road Traffic Injury in the Auckland Region, Hosking, Ameratunga, Exeter and Stewart, School of Population Health, University of Auckland (2013)



## Where are we now?

If we continue as we're doing now, by 2030 more than 7000 people in Tāmaki Makaurau will be killed or seriously injured in avoidable, unnecessary transport harm<sup>19</sup>

People aren't happy with the current level of road safety - satisfaction with road safety in Tāmaki Makaurau has steadily **declined** from **65%** in December 2015 to **57%** in December 2018.<sup>20</sup>

Almost two-thirds (62%) of respondents to the 2018 Auckland Quality of Life survey said dangerous driving (including drink driving and speeding) was a problem over the past year.<sup>21</sup> This was the biggest crime and safety issue ahead of car theft and feeling unsafe near others.

AT receives a high volume of public requests for speed management, safe pedestrian crossings, cycle safety improvements, reduced red-light running at intersections, and footpath safety.<sup>22</sup>

Over **70%** of Auckland's road network is currently not aligned with safe and appropriate speeds.<sup>23</sup>

Residents in **Franklin** and **Rodney** Local Board areas have the lowest levels of satisfaction with road safety at **38%** and **35%** respectively in December 2018.

In Aotearoa, deaths from diseases caused by being inactive are more than three times those from transport crashes.<sup>24</sup> Feeling safe and confident to be more active when travelling will play a positive role in improving health.

<sup>19</sup> This number is based on the current 2016-2018 annual average baseline of 719 DSI times 11 years

<sup>20</sup> Rooding Customer Satisfaction Survey, Auckland Transport (2015-2018)

<sup>21</sup> Quality of Life Survey 2018: Auckland report, Nielsen on behalf of Auckland Council (2018)

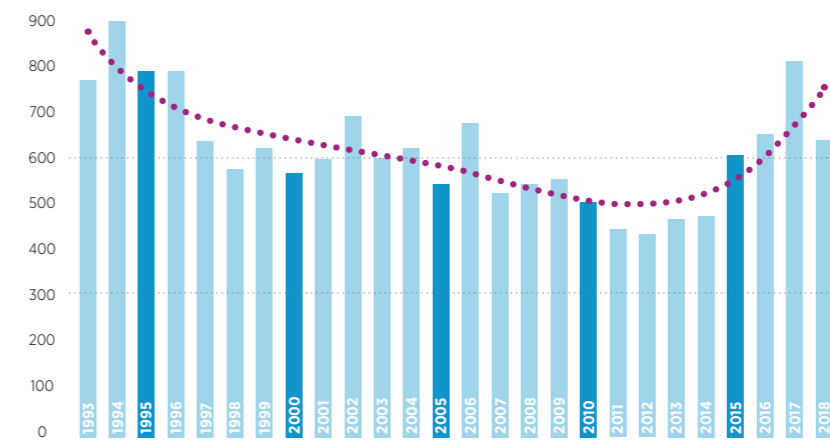
<sup>22</sup> Customer Relationship Management (CRM data), Auckland Transport (2019)

<sup>23</sup> Safer Journey's Risk Assessment Tool (Mega Maps, NZ Transport Agency)

<sup>24</sup> Impacts of Transport on the Health of New Zealanders and Current Policy Responses, R Samuelson for Ministry of Transport (2018)

## Transport safety performance

Overall road safety performance has declined since 2012



25 years of death and serious injury on Auckland roads<sup>25</sup>

Road safety performance in Tāmaki Makaurau has worsened at a faster rate than the national road deaths and serious injuries since 2014.

This climbing road trauma trend is a significant shift from the previous long-term downward trend in the number of people killed or seriously injured in Tāmaki Makaurau over the last 20 years, especially for vulnerable road users.

More recently in 2018, there was an annual 22 percent reduction in

deaths and serious injuries from 2017. However, the 649 people killed or seriously injured in 2018 is still well above our 2009-13 baseline of 489 and continues the five-year upward trend.

An increase in the amount of compulsory breath testing and safety camera offences by Police may have in part contributed to the reduction of road deaths and serious injury in 2018.

Not everyone hurt in a road crash has a police report, so not all injuries end up in the NZ

Hospital data indicates for every two road injuries reported to Police there is at least one more unreported<sup>27</sup>

Transport Agency database. This means that the official level of road trauma is a conservative estimate.

As part of our strategic actions we'll create a more complete picture of injuries that occur on our network. People on foot or cycling, and rural road injuries are significantly under reported.<sup>26</sup>

<sup>25</sup> Crash Analysis System, NZ Transport Agency (May 2019)

<sup>26</sup> Social Cost of Road Crashes & Injuries, Ministry of Transport (2018)

<sup>27</sup> Hospitalisation of more than one day from a vehicle crash, Ministry of Health (2018)

# Public transport safety

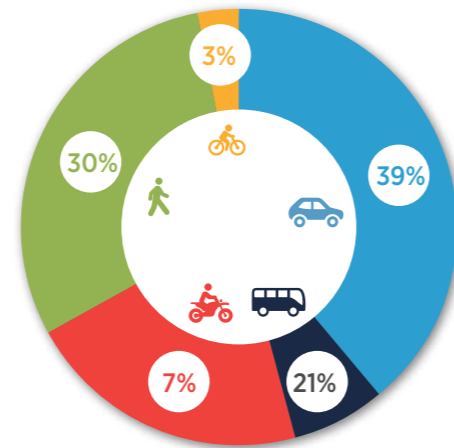
As part of providing a safe transport system for Tāmaki Makaurau, we need to determine how to report all transport injuries for all modes. For trains, buses and ferries this includes injuries from falls and slips inside and outside of vehicles and safety on and near train tracks.

### From 2014 to 2018:

- One person died travelling on public transport, a bus occupant in 2018<sup>28</sup>
- A further seven people died following crashes involving a bus
  - Two on foot
  - One bus driver and three vehicle occupants
  - One motorcyclist<sup>29</sup>
- Seven people on foot were killed crossing railway level crossings<sup>30</sup>
- 15 people on foot were killed while on the railway corridor<sup>31</sup>
- No people died from crashes involving an AT ferry

Further data on this is available from ACC, KiwiRail and health and safety reporting, and more work will be done in the future to be able to report more fully on transport safety.

**DSI when a bus was involved in the crash (2014 - 2018)**



From 2014-2018 buses were involved in 44 fatal and serious crashes, resulting in seven deaths and 50 serious injuries. (1.8% of total DSI). People on foot make up 30% of death and serious injuries when a bus is involved. This is significantly higher than the 18% people on foot that make up the total deaths and serious injuries.

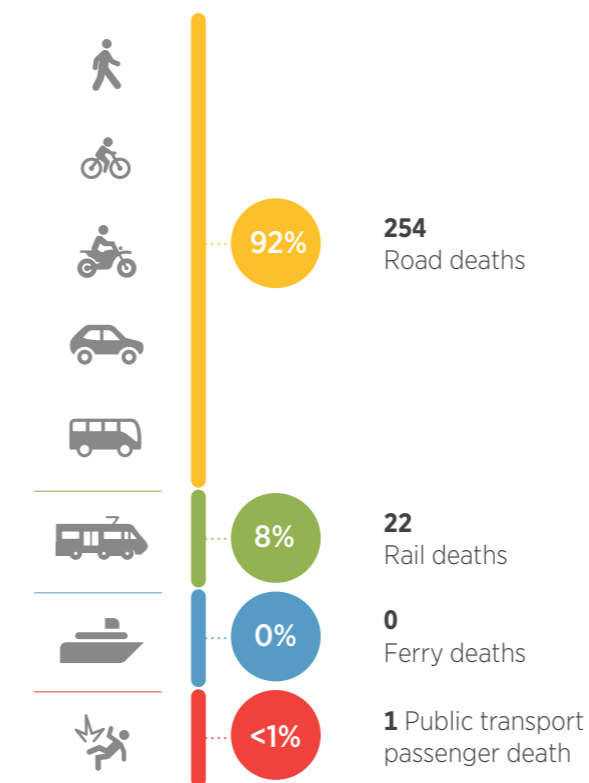


# Road safety to transport safety

### From road safety to transport safety

We're taking a wider view than traditional road safety strategies and including harm related to passengers on public transport. This is consistent with Vision Zero principles that every life matters and using a systemic approach to safety. While public transport related deaths were a small portion of transport deaths in the past five years, we're taking a proactive approach so people feel confident and safe when they choose sustainable transport.

**Transport deaths in Auckland (2014 - 2018)**

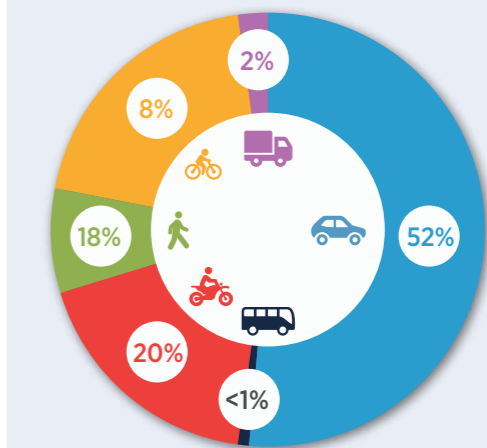


In this strategy death and serious injury (DSI) data refers to harm from road crashes. It is not yet possible to directly compare serious injury across all modes.

# Ways to travel

Nearly half of people who die or are seriously injured are either walking, cycling or riding a motorbike

**Auckland DSI by mode of injured person (2014 - 2018)**



People who are not protected by a metal vehicle shell, such as people riding motorbikes, cycling or walking, made up 46 percent of all deaths and serious injuries from 2014-2018. Motorcyclists and moped riders accounted for 20 percent of road crash deaths and serious injuries.

They are significantly over-represented relative to their traffic volume. Pedestrian deaths and serious injuries accounted for 18 percent of total deaths and serious injuries, and cyclists 8 percent. The safety of these road users, especially people walking and cycling, is key to achieving a safe and healthy transport network for Tāmaki Makaurau.

<sup>28</sup> AT Health and Safety Information System (May 2019)  
<sup>29</sup> Crash Analysis System, NZ Transport Agency (May 2019)  
<sup>30</sup> NZTA Rail Incident System (July 2019)  
<sup>31</sup> NZTA Rail Incident System (July 2019)



# Urban and open road speed environments

## 60% of deaths and serious injuries are on 50km/h roads

Tāmaki Makaurau has a distinctive urban road safety problem compared to other regions. This is something unique to Auckland and some other large cities in New Zealand, we need to work with our national partners to ensure funding and treatment models are effective in an urban environment, especially for vulnerable road users.

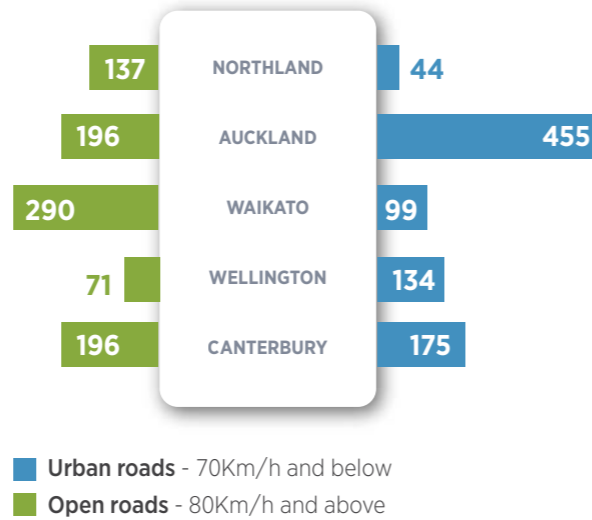
On our rural network too many people are getting hurt, this is highlighted in the high rate per 100,000 population of death and serious injury for both the Rodney and Franklin local board areas. In 2018, an average 12 people in Rodney and 9 people in Franklin were killed or seriously injured for every 100,000 residents compared to an average of 5 DSI per 100,000 people for Tāmaki Makaurau.<sup>32</sup>

Fifteen percent of Tāmaki Makaurau road deaths and serious injuries occur on state highways governed by the NZ Transport Agency. The rest are on local roads managed by AT.

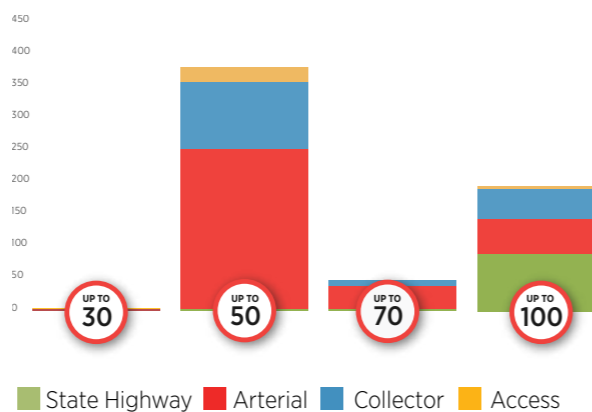
In 2018, 50km/h urban roads were where 51 percent of pedestrian injuries occurred, 62 percent of cycle injuries, 42 percent of motorcycle injuries and 30 percent of vehicle occupant injuries.

AT and the NZ Transport Agency work together to reduce deaths and serious injuries with a One Network approach to ensure consistency.

Regional DSI averages (2014 - 2018)



Auckland DSI by road type and speed limit



More deaths and serious injuries occur on urban arterials than any other type of road

<sup>32</sup> Data from CAS and Statistics NZ population estimates.

# Transport safety for Māori

We recognise that the statistics alone do not give the full story of the impact of loss of life on Māori

**Whānau travel together and there can be immediate impact on whānau, hapū, iwi and hāpori Māori from multiple fatalities. From a wellbeing perspective, the data provides a picture of physical harm however it does not measure the psychological impact on whānau and communities.**

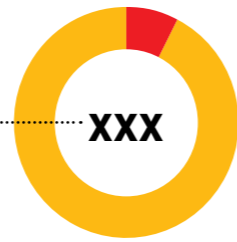
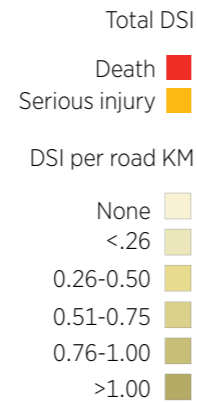
Māori are at a much higher risk of road traffic injury per population than other ethnicities in Tāmaki Makaurau. In the past five years 18 percent of all people who have lost their lives on our roads were Māori, a disproportionate level of harm as Māori make up 11 percent of the overall population in Tāmaki Makaurau. When including serious injuries this figure is 14 percent of all casualties in the past five years.

The majority of death and serious injury crashes involving Māori occur on local urban roads, though there is a significant percentage occurring on higher speed open roads, primarily in the Rodney and Franklin areas.



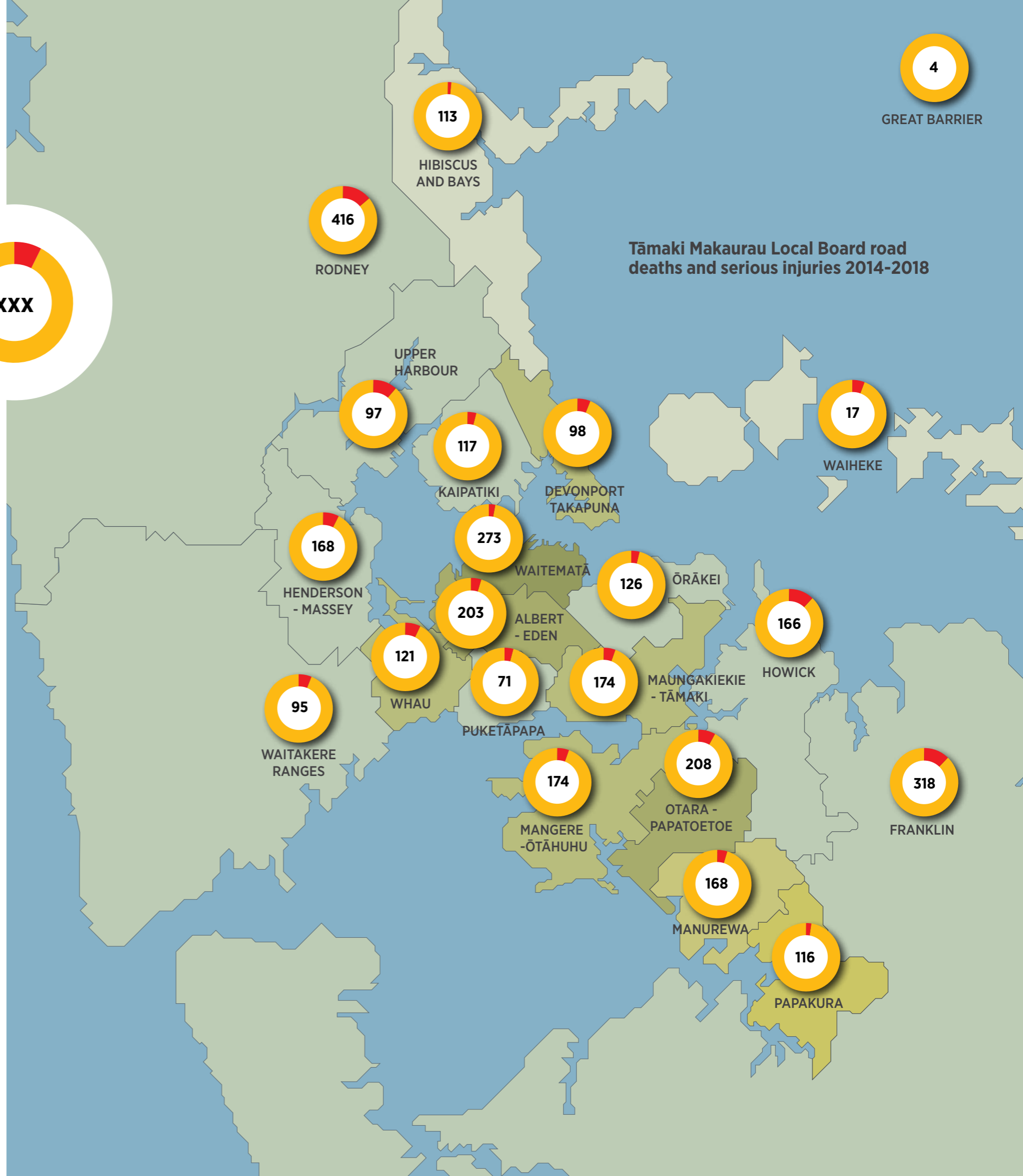
# Tāmaki Makaurau Local Board areas

From 2014-2018, Rodney and Franklin Local Boards had the highest numbers of people killed or seriously injured. Waitemātā and Otara-Papatoetoe Local Boards had the highest densities of deaths and serious injuries by road kilometre. <sup>33</sup>



GREAT BARRIER

Tāmaki Makaurau Local Board road deaths and serious injuries 2014-2018



<sup>33</sup> CAS and RAMM databases for 2014-2018 (June 2019)

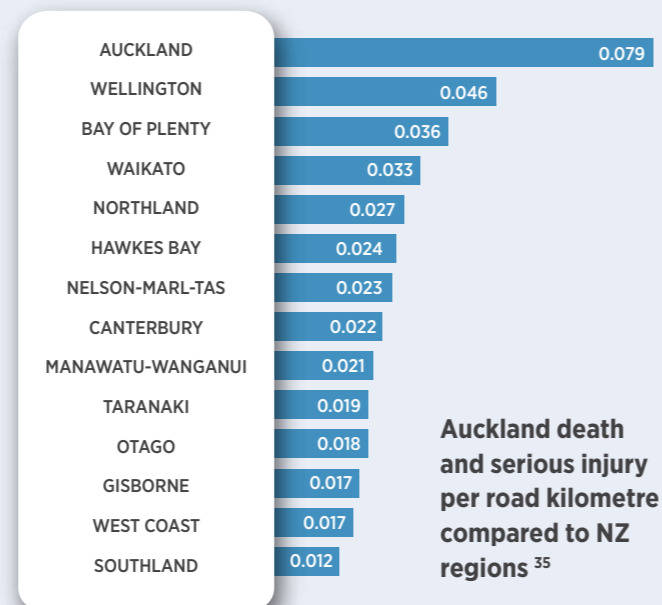
## Auckland's unique challenges

Improving road safety in Tāmaki Makaurau is critical and will benefit the whole of Aotearoa in terms of social costs

Road safety performance across Aotearoa has been deteriorating in recent years, with an upward trend in road deaths and serious injuries. Tāmaki Makaurau has been affected strongly by the recent upswing.

While some might think Tāmaki Makaurau numbers are due to more roads in our region, Tāmaki Makaurau has the highest rate of road deaths and serious injuries per kilometre of road, as shown below.

Auckland's high population and diverse transport modes creates a complex urban road environment, which is more easily compared with cities outside of Aotearoa than across the regions.<sup>34</sup>



Auckland had the highest risk of fatality per unit distance travelled for motorcyclists and second highest for people walking, compared to 30 Organisation for Economic Co-operation and Development (OECD) cities. As our deaths and serious injury numbers are both high outright, by density and by kilometre road length, any national road safety strategy outcomes will be strongly linked to outcomes and urban specific safety solutions in Tāmaki Makaurau.

## Looking to the future

We face unforeseen safety issues due to future complexity and uncertainty of technology, environment and transportation needs. This means we must obtain a better understanding of potential issues so that we can manage them and make our transport network safer.

The best performing countries and cities in the world are already close to zero, with current technologies, knowledge and tools. Since Vision Zero was developed and implemented in Sweden the number of people killed every year on their roads has been reduced by 67%.<sup>36</sup>

Vision Zero was adopted by Edmonton (Canada) in 2015 and since then the number of fatalities has dropped by 41% and serious injuries have dropped by 17%.<sup>37</sup> New York (USA) has seen fatalities drop by one-third since 2013 and the number of pedestrian deaths is down 37 percent.<sup>38</sup>

30 years is a long time away and we expect technology and data to be very different by then. It is too early to say the exact year zero is possible, but we are comfortable with 2050.

### Complexity and uncertainty of future technology

We're moving towards a global connected, autonomous and shared economy. Over the coming decades, there will be new transport technologies such as autonomous vehicles, smart buses, intermodal transportation hubs, more micro-mobility and many other things that haven't entered mainstream thinking yet.

Tāmaki Makaurau needs to be ready for this next generation of transportation and capitalise on these innovations for everyone. There are many changes to the future of transport, some things will make Auckland a safer place and some will be detrimental to safety. We'll be keeping up to date with global developments in emerging transport services and reviewing their potential safety outcomes.

We're facing a climate emergency and need to reduce greenhouse gas emissions while preparing for the predicted impacts of an already changing climate. To achieve this, we are working with commercial transport operators and industry to help adopt safe and sustainable transport technology.

International experience shows that cities committed to a zero goal have seen greater innovation and results in safety

As part of the current work being undertaken to transition Auckland's bus fleet to low and zero emission vehicles, we're already looking at how we can introduce new technologies such as cyclist detection systems and acoustic vehicle alert systems to improve safety for vision impaired pedestrians around buses.

Electric ferries with more gradual braking ability and automatic speed management for trains based in CCTV hazard detection are other potential opportunities.

<sup>36</sup> Sweden Road Safety Annual Report 2018, International Transport Forum, OECD.

<sup>37</sup> Annual Report 2018: Vision Zero Edmonton Year Three (2019)

<sup>38</sup> New York Vision Zero Year 5 Report (March 2019)

<sup>34</sup> Safer City Streets, Global benchmarking for Urban Road Safety, OECD/ITF (2018)

<sup>35</sup> CAS and RAMM databases for 2014-2018 (June 2019)

## Our strategic priorities

Our strategy has a long term goal for a network with no deaths or serious injuries by 2050

**We realise this is an ambitious goal so have set a target for no more than 250 deaths and serious injuries by 2030. While this figure is still far too high, it will set us on the pathway to achieving our vision.**

Based on the information we have now, we'll focus on these priorities for the strategy.

1. Reducing transport deaths and serious injuries, especially for vulnerable transport users
2. Providing a safe transport environment by increasing investment in safe infrastructure, technology and speed management
3. Supporting safe transport user behaviour through education, training, enforcement and travel demand management
4. Creating safe and healthy streets through safe active modes including access to public transport, schools and town centres
5. Ensuring Māori participation and representation in governance decision-making and leadership
6. Expanding Te Ara Haepapa Māori designed and led programmes including sustainable funding pathway and development of a monitoring and evaluation framework

7. Delivering safe end-to-end public transport journeys
8. Providing Vision Zero leadership, capability, policies, safety management tools and systems
9. Ensuring safety is equitable regardless of age, ethnicity and socio-economic status
10. Increasing public awareness of successful Vision Zero principles and practice
11. Embedding Vision Zero in land use planning, placemaking and design
12. Integrating safety into procurement, vehicle fleets and workplace health and safety
13. Establishing better data, monitoring and research into systemic causes of road trauma and its prevention.

## Our targets

We plan to achieve an interim target of no more than 250 deaths and serious injuries by 2030. This target is approximately a 65 percent reduction from a 2016-2018 annual average baseline of 716 deaths and serious injuries. This extends the Auckland Transport Alignment Project (ATAP) target of reducing deaths and serious injuries by 60 percent by 2027, from a 2017 baseline. The analysis behind this target is explained in Appendix A and is based on the AT Road Safety Programme Business Case (PBC).

Our target for the first action plan is no more than 575 deaths and serious injuries by 2021. This is approximately a 20% reduction from the 2016-2018 annual average baseline. We recognise that population growth and increases in travel present challenges in meeting these targets.

We also plan to increase safe active mode and end-to-end public transport journeys, shown in our performance measures. Further work needs to be done to develop targets for public transport safety.

By the time we have achieved our interim target we will be in a stronger position to specify a completion date for our Vision Zero goal and outline how we will achieve this.

Our goal of zero deaths and serious injuries by 2050, is in line with the Auckland Plan 2050. This reflects a conservative judgement, and is consistent with Australia's 2050 vision zero goal. We may be able to achieve faster results and will work with our partners to learn and develop as we go.

Today there are already some areas where we have no road deaths and are very close to achieving our zero target for serious injuries. Last year there were zero road deaths for active school-aged children, that's kids between five and 18, on school days from 7am to 9am and 3pm to 5pm. There were also zero deaths in the Puketāpapa Local Board area and on ferries. We also achieve zero deaths and serious injuries on some days of the year and in some parts of the road transport network.

Our goal is to prevent over 3000 deaths and serious injuries happening over the next 11 years

# Our safety performance indicators <sup>39</sup>

## STRATEGIC PRIORITY ONE

### Reducing transport deaths and serious injuries, especially for vulnerable transport users

| ACTIONS     | SAFETY PERFORMANCE INDICATORS  |
|-------------|--|
| All actions | 1.1 - Number of road deaths and serious injuries overall <sup>40</sup>                                       |
|             | 1.2 - Number of deaths and serious injuries involving public transport, including public transport occupants |

## STRATEGIC PRIORITY TWO

### Providing a safe transport environment by increasing investment in safe infrastructure, technology and speed management

| ACTIONS                       | SAFETY PERFORMANCE INDICATORS  |
|-------------------------------|--|
| Safe infrastructure and speed | 2.1 - % of VKT on roads with speed limit above 80km/h that have a median barrier   |
|                               | 2.2 - % of rural VKT on roads that provide safe system primary and supporting treatments (e.g three star equivalent or better) <sup>41</sup>           |
|                               | 2.3 - % of high-risk intersections that have been modified to align with Vision Zero/Safe System standards, including for motorcycles and active modes |
|                               | 2.4 - Number of pedestrian crossings modified to align with Vision Zero/Safe System standards, including near schools                                  |
|                               | 2.5 - Kilometres of protected cycle facilities   |
|                               | 2.6 - Proportion of road network where speed limits are adjusted to align with Safe and Appropriate Speed (SaAS) speeds                                |

## STRATEGIC PRIORITY THREE

### Supporting safe transport user behaviour through education, training, enforcement and travel demand management

| ACTIONS  | SAFETY PERFORMANCE INDICATORS   |
|--|---|
| Policing to prevent harm<br><br>Community engagement | 3.1 - % of traffic travelling at or below speed limit   |
|  | 3.2 - % of traffic travelling through automated enforcement areas <sup>42</sup>   |
|  | 3.3 - % of drivers within the legal Blood Alcohol Content (BAC) level   |
|  | 3.4 - % of drivers unimpaired by drugs  |
|  | 3.5 - % of car occupants wearing a seatbelt or correctly using a child restraint  |
|  | 3.6 - % of the general public believe that it is likely to get caught for undertaking risky behaviours  |
|  | 3.7 - Proportion of drivers detected as: <ul style="list-style-type: none"> <li>• Not using a cellphone</li> <li>• Being appropriately licenced</li> <li>• Giving way when required at intersections</li> </ul> |

## STRATEGIC PRIORITY FOUR

### Creating safe and healthy streets through safe active modes including access to public transport, schools and town centres.

| ACTIONS  | SAFETY PERFORMANCE INDICATORS   |
|--|---|
| Safe infrastructure and speed<br><br>Public transport safety | 4.1 - Community perceptions on routes to school, town centres and public transport as safe environments for active modes                          |
|  | 4.2 - Increase in active mode and public transport journeys   |
|  | 4.3 - % of schools where the mean travel speeds are 30km/h or lower during busy periods   |
|  | 4.4 - Safe and healthy streets for everyone contributing to improved health, emissions and social outcomes (measure and baseline to be developed) |
|  | 4.5 - Proportion of town centres with a high number of people walking and cycling where travel speeds are 30km/h or lower                         |

STRATEGIC PRIORITY FIVE

**Ensuring Māori participation and representation in governance decision-making and leadership**

| ACTION   | SAFETY PERFORMANCE INDICATOR  |
|--|---|
| Māori participation and representation in governance, decision making and leadership | <b>5.1</b> - Feedback from Mana Whenua and Mataawaka on if this has been achieved |

STRATEGIC PRIORITY SIX

**Expanding Te Ara Haepapa Māori designed and led programmes including sustainable funding pathway and development of a monitoring and evaluation framework**

| ACTION         | SAFETY PERFORMANCE INDICATOR   |
|----------------|--|
| Te Ara Haepapa | <b>6.1</b> - Monitoring and evaluation framework using Māori methodology developed |

STRATEGIC PRIORITY SEVEN

**Delivering safe end-to-end public transport journeys**

| ACTIONS                 | SAFETY PERFORMANCE INDICATORS   |
|-------------------------|---|
| Public transport safety | <b>7.1</b> - % of bus drivers engaged in Vision Zero and adequately trained for their role in delivering safe services for drivers and passengers |
|                         | <b>7.2</b> - % serious bus incidents where fatigue was a factor   |
|                         | <b>7.3</b> - Number of near misses at rail pedestrian level crossings   |
|                         | <b>7.4</b> - Reduction in the number of motor vehicle incidents at the road/rail interface  |

STRATEGIC PRIORITY EIGHT

**Providing Vision Zero leadership, capability, policies, safety management tools and systems**

| ACTION   | SAFETY PERFORMANCE INDICATOR  |
|--|---|
| Leadership and governance<br>Grow our people<br>Central government partnership | <b>8.1</b> - Attendance rates of Tāmaki Makaurau safety leaders to key meetings<br><b>8.2</b> - % of Tāmaki Makaurau safety leaders who have a safety Key Performance Indicator (KPI) in their role<br><b>8.3</b> - % of staff who can confidently explain what Vision Zero is and what it means for their role |

STRATEGIC PRIORITY NINE

**Ensuring safety is equitable regardless of age, ethnicity and socio-economic status**

| ACTION                                     | SAFETY PERFORMANCE INDICATOR  |
|--|---|
| Performance and research<br>Te Ara Haepapa | <b>9.1</b> - Measure of equity gap between groups by age, ethnicity and socio-economic status |

STRATEGIC PRIORITY TEN

**Increasing public awareness of successful Vision Zero principles and practice**

| ACTION                | SAFETY PERFORMANCE INDICATOR   |
|-----------------------|--|
| Our Vision Zero story | <b>10.1</b> - % of the general public understand and support the Vision Zero approach<br><b>10.2</b> - Public acceptance of road safety interventions (e.g. speed limit changes)<br><b>10.3</b> - Community and Tāmaki Makaurau Governance Group staff are aware, understand and support the Vision Zero approach including speed management |

# Our focus areas

Our strategy has four focus areas to help us achieve our ambitious long-term goal of zero deaths. The first two-year action plan is built on these four areas. We propose to follow the first action plan with three further action plans, each three years long. Action plans two to four represent establishment, growth and consolidation phases.

Resourcing for the Tāmaki Makaurau Vision Zero Strategy is primarily sourced from the National Land Transport Fund through the Auckland Regional Land Transport Programme (RLTP), Auckland Regional Fuel Tax and other related agency funding processes. Funding is in place for the first Action Plan 2019/21 as part of the National Land Transport Programme (NLTP) 2018/21. Resourcing for future Action Plans will be negotiated through the subsequent NLTP and RLTP processes by the relevant agencies.



## Key Vision Zero actions

Currently, we have several activities all being delivered by different organisations. This focus area aims to bring together all these activities and align our work across all partners. We expect this will make the largest contribution to our death and serious injury reduction targets.

### Actions

- Safe infrastructure and speed
- Policing to prevent harm
- Public transport safety
- Community engagement
- Te Ara Haepapa
- Post-crash care



## Build capability

We need to build our skills and capacity, so we have the tools and ability to deliver the safety gains from future action plans and achieve our long-term goals.

### Actions

- Grow our people
- Make plans and places for our future
- Central government partnership
- Workplace health and safety



## Lead conversations

Only with our communities will we be able to create a truly safe Tāmaki Makaurau.

### Actions

- Leadership and governance
- Māori participation and representation in governance, decision making and leadership
- Our Vision Zero story
- Transport safety and equity



## Research and evaluation

We will work to continuously improve performance through evaluation, research and an annual report of the strategy's performance.

### Actions

- Performance and research

### STRATEGIC PRIORITY ELEVEN

#### Embedding Vision Zero in land use planning, placemaking and design

| ACTION                               | SAFETY PERFORMANCE INDICATOR   |
|--------------------------------------|--|
| Make plans and places for our future | <b>11.1</b> - Vision Zero incorporated into key planning, placemaking and design documents |

### STRATEGIC PRIORITY TWELVE

#### Integrating safety into procurement, vehicle fleets and workplace health and safety

| ACTION                      | SAFETY PERFORMANCE INDICATOR  |
|-----------------------------|---|
| Workplace health and safety | <b>12.1</b> - Proportion of Tāmaki Makaurau Road Safety Group members and key providers who have robust health and safety plans in place that recognise Vision Zero and include criteria around safe vehicles and transport practices |

### STRATEGIC PRIORITY THIRTEEN

#### Establishing better data, monitoring and research into systemic causes of road trauma and its prevention

| ACTIONS                                     | SAFETY PERFORMANCE INDICATOR   |
|---|--|
| Performance and research<br>Post-crash care | <b>13.1</b> - Proportion of indicators that can be measured, tracked and reported annually |

<sup>39</sup> There are a number of measures where data is currently not available. Work will be undertaken to find appropriate data sets. These safety performance indicators are intended to align with the national road safety strategy indicators wherever appropriate. They may be reviewed and updated after the national strategy is finalised.

<sup>40</sup> Also in more detail by transport mode, per capita, per vehicle kilometres travelled (VKT), by urban and open road speeds, by AT and all Auckland roads, by age, ethnicity, Local Board area, crash type, contributing factors, whether travelling for work. To be checked against hospitalisation data for under reporting.

<sup>41</sup> Primary treatments are those that have the potential to achieve the Safe System objectives of near-zero deaths and serious injuries. Supporting treatments (Turner et al. 2009) reduce the likelihood of a crash, but do not fully reduce the consequence or severity of a crash should one occur. May record these secondary safe system treatments separately

<sup>42</sup> Automated enforcement indicator to be supported by an output measure on the number of safety cameras on the network

# Our action plan 2019 - 2021

In this first action plan, we will build on the success in areas where we already achieve zero deaths and serious injuries. We will expand this to other geographic areas, communities, transport users and days of the year. In this way, we will show the community that zero is the right goal and we can achieve this together.

|  <b>Safe infrastructure and speed</b>   |  <b>Policing and prevent harm</b>   |  <b>Community engagement</b>   |
|--|--|--|
| <b>Design, operate and maintain a safe network</b>   | <b>Be safe, feel safe enforcement</b>  | <b>Behaviour change and education programmes</b>   |
| <ul style="list-style-type: none"> <li>Road Safety Programme for AT roads, including speed management plan and vulnerable road users</li> <li>Safe Networks Programme</li> <li>Connected Corridors for integrated busways</li> <li>Safe walking and cycling facilities</li> <li>Integrate safety into maintenance and renewals through a Safety Management System (SMS)</li> </ul> | <ul style="list-style-type: none"> <li>Key risk areas of speed, restraints, impairment (alcohol and drugs, including roadside impairment tests), intersections and distractions (RIDS)</li> <li>Increased red light safety cameras as part of the Memorandum of Understanding between Auckland Transport and NZ Police</li> <li>Improved traffic crash reporting (TCR) processes</li> <li>Increased use of supported resolutions and compliance for non-RIDS related offences to achieve road safety outcomes</li> </ul> | <ul style="list-style-type: none"> <li>Active and sustainable mode share at schools where Travelwise programme is implemented</li> <li>Active and sustainable mode share for morning peak commuters where a Travelwise Choices programme is implemented</li> <li>Road safety behaviour change programmes including ACC Ride Forever &amp; Young Drivers</li> <li>Cycle skills training and behaviour change initiatives</li> <li>Travel demand and Travelwise Choices programmes</li> <li>Bus safety initiatives for drivers and passengers</li> </ul> |
| <b>National strategy link</b><br>Infrastructure and speed  | <b>National strategy link</b><br>Road user behaviour   | <b>National strategy link</b><br>Road user behaviour   |
| <b>Lead and supporting partners</b><br>Auckland Transport<br>NZ Transport Agency (Safer Networks)<br>Auckland Council<br>Local Boards<br>Tāmaki Makaurau partners and stakeholders   | <b>Lead and supporting partners</b><br>Police<br>NZ Transport Agency (safety cameras)<br>Tāmaki Makaurau partners and stakeholders   | <b>Lead and supporting partners</b><br>Auckland Transport<br>NZ Transport Agency<br>ACC<br>Local Boards<br>Tāmaki Makaurau partners and stakeholders   |

|  <b>Te Ara Haepapa</b>  |  <b>Public transport safety</b>  |  <b>Post-crash care</b>  |
|--|---|---|
| <b>Māori transport safety outcomes</b>   | <b>Public transport and passenger services safety</b>   | <b>Strengthen trauma systems</b>  |
| <ul style="list-style-type: none"> <li>Expand Te Ara Haepapa Māori designed and led programmes including sustainable funding pathways</li> <li>Develop a monitoring and evaluation framework using Māori methodology</li> <li>Coordinate efforts between partner agencies through regular hui</li> </ul> | <ul style="list-style-type: none"> <li>More consistent reporting including standard serious incident template</li> <li>Deliver rail crossing pedestrian gating programme and plan for future grade separation</li> <li>Promote safety through contracts, including telematics, driver fatigue/distraction systems, vehicle specifications and training</li> <li>Improve roles clarification and coordination.</li> <li>Explore ways to encourage high risk drivers to use public transport</li> <li>Enhanced safety by design in new ferry vessels purchased</li> </ul> | <ul style="list-style-type: none"> <li>Enhance protocols and systems to ensure crash victims are transported to the right hospital, at the right time, with the right care, and that they receive effective long-term rehabilitation services where required</li> <li>Ensure public transport drivers and passengers are connected effectively to emergency services as needed</li> </ul> |
| <b>National strategy link</b><br>Road to Zero consultation document notes this area for future work  | <b>National strategy link</b><br>Infrastructure and speed (bus, light rail)   | <b>National strategy link</b><br>System management  |
| <b>Lead and supporting partners</b><br>Auckland Transport<br>Police<br>Mana Whenua and Mataawaka<br>Tāmaki Makaurau partners and stakeholders  | <b>Lead and supporting partners</b><br>Auckland Transport<br>Auckland Council<br>NZTA<br>Rail operators<br>Local Boards<br>Tāmaki Makaurau partners and stakeholders  | <b>Lead and supporting partners</b><br>Auckland Transport<br>Tāmaki Makaurau partners and stakeholders<br>Auckland Regional Public Health Service<br>ACC (rehabilitation)<br>St John Ambulance Services<br>Westpac Helicopter Service   |





**Grow our people**

**Organisational learning, change and coordination**

- Vision Zero learning and change for partners, Elected Members and consultants and public transport drivers
- Police region-wide deployment model for general deterrence
- Project Steering Group (PSG) and Project Control Group (PCG) to direct and coordinate safety in capital programme at Auckland Transport including widespread use of Safe System Assessment Framework (SSAF)
- Culture and Transformation will partner with the Safety function to ensure that Vision Zero is part of AT culture and DNA, and build AT Vision Zero advocates

**National strategy link**

System management

**Lead and supporting partners**

Auckland Transport  
Police  
Tāmaki Makaurau partners and stakeholders



**Make plans and places for our future**

**Land use planning and placemaking projects to continue to shift to public transport and active modes**

- Explore appropriate opportunities to undertake a Unitary Plan review to consider any additional methods to further enhance safety benefits
- Include Vision Zero in review of the Roads and Streets Framework (RASf)
- Explore appropriate opportunities to track compliance of new developments with the Design Guide (USRDG) and to embed Vision Zero principles in future developments.
- Structure Planning process review to include USRDG and RASf as appropriate
- Integrate Vision Zero principles with placemaking work such as Access for Everyone and the City Centre Masterplan (CCMP)

**National strategy link**

Infrastructure and speed  
Road user behaviour

**Lead and supporting partners**

Auckland Council  
Auckland Transport (RASf, USRDG and ITA)  
Tāmaki Makaurau partners and stakeholders



**Workplace Health and Safety**

**Employers lead by example**

- Implementation of Zero Speeding policies and trial Intelligent Speed Adaptation (ISA) technology to manage speeds in corporate fleets
- Focus on travel for work as a workplace health and safety issue
- Safe procurement of vehicles and services
- Health and safety policies on transport safety
- Work with bus operators to increase safe bus driver behaviour including stopping at red lights, safe speeds, acceleration and braking

**National strategy link**

Vehicle as a workplace

**Lead and supporting partners**

Auckland Transport  
Ministry of Transport  
NZ Transport Agency



**Leadership and Governance**

**Resolute leadership, focused on results**

- AT Road Safety Business Improvement Review recommendations relating to leadership and influence
- Explore innovative funding sources for safety
- Ensure Tāmaki Makaurau Governance Group structure enables strong governance and leadership including Māori and public transport participation and representation
- Public transparency and reporting of Vision Zero progress

**National strategy link**

System management

**Lead and supporting partners**

All Tāmaki Makaurau partners and stakeholders



**Central government partnership**

**Safety in policy, legislation and decision making. Influence national decisions that impact regional safety**

- Supporting the following legislation and policy changes as a leadership group:
- Enhanced approach to safety cameras and their infringements
  - Enhanced enforcement of drug driving
  - Lifting safety standards of the vehicle fleet
  - Road engineering standards and guidelines updated to reflect Vision Zero principles
  - National survey of road safety user perceptions
  - AT Road Safety Business Improvement Recommendations relating to working with central government including those connected to resource allocation priorities, vehicle safety standards, national strategy, penalties, alcohol and drugs, infrastructure and speed
  - Review financial penalties and remedies
  - Review and develop network entry/exit safety controls for new modes, services and technologies
  - Strengthen the role of National Road Safety Committee

**National strategy link**

System management

**Lead and supporting partners**

Auckland Transport  
Ministry of Transport  
Auckland Council  
NZ Transport Agency  
Auckland Regional Public Health Service  
Accident Compensation Corporation  
Tāmaki Makaurau stakeholders



### Our Vision Zero story

#### Work with iwi, community and business groups to build an understanding of what Vision Zero is and means for Tāmaki Makaurau

- Lead conversations on the role of transport safety in delivering the shifts needed for Auckland's future
- Establish and promote start up Vision Zero places to demonstrate what Vision Zero would look like in a community
- Te Ara Haepapa is the appropriate vehicle for establishing Vision Zero with Māori
- Communicate Vision Zero story and show how its benefits will impact communities and how everyone has a part to play
- Develop an online public Vision Zero website highlighting high-risk areas, and planned speed management and road safety projects



### Māori participation in leadership & decision making

#### Mana Whenua and Mataawaka representation

- Work with Mana Whenua and Mataawaka to ensure that there is true and appropriate partnership approach representation of Māori at all levels of leadership and decision making on transport safety in Tāmaki Makaurau.

#### National strategy link

System management

#### Lead and supporting partners

Auckland Transport  
Auckland Council  
NZ Transport Agency  
Police  
Tāmaki Makaurau partners and stakeholders

#### National strategy link

Road to Zero consultation document notes this area for future work

#### Lead and supporting partners

Auckland Transport  
Auckland Council  
NZ Transport Agency  
Mana Whenua and Mataawaka  
Tāmaki Makaurau partners and stakeholders



### Performance and research

#### Measure and evaluate performance and research opportunities

- Public annual report on strategy and action plan using intervention outputs, intermediate and final safety outcomes framework
- Develop new tools to monitor and measure risk, provide insight, use analytics and measure risk
- Measure customer and community perceptions and engagement
- Research opportunities including future technology, health data, micro-mobility and equity
- Evaluate current engineering programmes, and review fatal crash investigation process and identify opportunities for improvement
- Develop new measures for distraction, health, equity, DSI on first and last leg of public transport journeys, accurate categorisation of serious injury across data sets, walking and public transport data
- Support further work to investigate equitable outcomes in transport safety, to inform actions and measures in further action plans

#### National strategy link

Infrastructure and speed  
Road user behaviour

#### Lead and supporting partners

Auckland Council  
Auckland Transport (RASF, USRDG and ITA)  
Tāmaki Makaurau partners and stakeholders

# Appendix A: Analysis behind our interim target

We are working together with our partners to achieve our long-term goal of zero deaths and serious injuries by 2050. We have analysed the progress we can make with our strategy to 2030 using a comprehensive and systematic multi-step process:

1. We set a performance baseline of average annual deaths and serious injuries in Tāmaki Makaurau over three years (2016, 2017 and 2018).
2. In the AT Road Safety Programme Business Case, we used good practice evidence to analyse how these deaths and serious injuries could be reduced with a range of available road safety treatments.
3. Potentially effective treatments were grouped into broader intervention categories. Four levels of increasing treatment intensity were specified with regard to projected budgets and other programme resource constraints.
4. Broad intervention categories covered corridor improvements, intersection improvements, motorcycle infrastructure, cycle infrastructure, pedestrian infrastructure, speed management, enforcement, travel demand management, community engagement and education, and associated policy and leadership initiatives.
5. Alternative programme options were then compiled and evaluated, comprising combinations of defined intervention categories and treatment levels.

6. Evaluating programme options followed a consistent procedure:

- We identified the number of deaths and serious injuries which could be reduced by the defined intervention categories and treatment levels.
- We used the evidence to form crash reduction factors that estimate the effectiveness of intervention categories in reducing deaths and serious injuries.
- The reduction factors helped us to estimate the effectiveness of each programme option, and we also considered how different interventions might interact. We then compared the effectiveness and cost of each programme option.

7. We selected a preferred programme option to form the core of the key Vision Zero actions, our Vision Zero strategy and action plan.

The preferred programme reflects a desired mix of interventions targeting high-risk areas, speed management and vulnerable road user safety. These are designed to achieve no more than 250 road deaths and serious injuries by 2030 and to help make significant shifts to active and public transport. This is complemented by building capability, leading Vision Zero conversations, programme monitoring and evaluation and research focus areas.

# Appendix B: Strategy development partners and stakeholders

## Tāmaki Makaurau Road Safety Governance Group

### Guiding Document

Auckland Vision Zero strategy and action plan.

### Group Mandate

The main role of this group is **Influence**

- Set road safety strategies for Tāmaki Makaurau
- Direct or delegate authority for partner agency resources to be deployed to meet road safety outcomes
- Overcome significant barriers (such as policy or legislative) which the Leadership Group cannot resolve
- Where required, influence political changes within respective agencies, influencing agencies or central / local government

## Tāmaki Makaurau Leadership Group

### Guiding Document

Auckland Vision Zero strategy and action plan.

### Group Mandate

The main role of this group is **Direction**

- Problem solve road safety issues (through the establishment of working groups)

- Develop year on year road safety priorities and set road safety outcomes
- Develop innovation
- Influence strategic direction for the Tāmaki Makaurau Governance Group and make recommendations for resource allocation, significant barriers to achieving outcomes and political issues
- Provide progress updates on achieving outcomes for road safety priorities for Governance and Working Groups

## Tāmaki Makaurau Road Safety Reference Group

### Guiding Document

Reference Group Terms of Reference

### Group Mandate

The role of the group is consultative and the Tāmaki Makaurau Group will carefully consider all input from the group in the light of overall strategic objectives for the programme, as well as statutory and other government policy requirements.

## Members (open to new members)

- National Road Carriers Association
- NZ Heavy Haulage Association
- NZ Trucking Association
- Road Transport Association
- Road Transport Forum
- Bus and Coach Assn
- Bike Auckland
- Generation Zero
- Walk Auckland and Living Streets Auckland
- Tourism New Zealand
- Motorcycle Safety Advisory Council
- Automobile Association
- Spark
- Vodafone
- Vector
- IAG
- Brake
- Safe Kids
- SADD
- Brain Injury Trust
- Women in Urbanism
- Electrix

# Glossary

**Active road users** Sustainable mode share of transport including pedestrians and cyclists

## Crash severity

- **Death/Fatal** A death occurring as the result of injuries sustained in a road crash within 30 days of the crash
- **Serious injury** An injury (fracture, concussion, severe cuts or other injury) requiring medical treatment or removal to and retention in hospital.

**Hapori Māori** Māori communities

**Hapu** Sub-tribe

**Hui** Formal gathering

**Iwi** Tribe

**Kaitiakitanga** Guardianship

**Kohanga Reo Māori** Immersive Pre-School or Māori Language Nest

**Kura Kaupapa Māori** Māori Immersive School

**Mana Whenua** 19 recognised Iwi of Tāmaki Makaurau

**Manaakitanga** Generosity and hospitality

**Marae Māori** Gathering or meeting place

**Mataawaka** Māori living in Auckland with Iwi affiliations outside of the 19 recognised Iwi

**Micro-mobility** Transport provided by very light vehicles, capable of carrying only one or two people. Examples include electric scooters, electric bicycles, powered skateboards, etc

**Oreitetanga** Māori as citizens

**Rangatahi Māori** Māori youth

**Rangatiratanga** Autonomy

**Road Safety** Prevention of death and injury to people on roads

**Road Safety Programme Business Case (PBC)** The phase of the Road Safety Business Case where an in depth understanding of the problems, opportunities and constraints that are proposed in the strategic case are developed and presented through evidence based data, information collection and analysis

**Safe mobility** The ability to move freely from place to place without risk of death or injury

**Safe System** A system approach that encompasses road safety interventions to promote safer environments

**Social costs** The social cost of a road crash and associated injuries includes loss of life and life quality, loss of output due to temporary incapacitation, medical costs, legal costs, and property damage costs

**Speed management** Road safety measures for all road users to facilitate speed reduction

**System designer** In the context of a Safe System a system designer is anyone who works within the transport system, e.g. engineers, planners, policy makers, Road Controlling Authorities, Police, vehicle manufacturers, etc

**Tāmaki Makaurau** Auckland region

**Te Ao Māori** Māori worldview

**Te Ara Haepapa** Community focused programme designed and led by Māori

**Te Tiriti O Waitangi** The Treaty of Waitangi

**Tikanga Māori** Customs and protocols

**Transport Safety** Prevention of death and injury to people using a transport network

**Urban KiwiRAP Tool** A NZ Transport Agency tool to assess the road safety risk on Local Authority road networks (not State Highways)

**Vision Zero** A safety strategy based on the principle that it isn't acceptable for people to be killed or seriously injured on the transport network

**Vulnerable road users** Pedestrians, cyclists, motorcyclists and moped riders

**Whakapapa** Genealogy

**Whānau** Family and belonging

**Whanaungatanga** Relationships and connections

# Acronyms

|                      |  |
|----------------------|--|
| <b>ACC</b>           | Accident Compensation Corporation                      |
| <b>ARPHS</b>         | Auckland Region Public Health Service                  |
| <b>AT</b>            | Auckland Transport                                     |
| <b>ATAP</b>          | Auckland Transport Alignment Project                   |
| <b>BAC</b>           | Blood Alcohol Content                                  |
| <b>CAS</b>           | Crash Analysis System                                  |
| <b>CCMP</b>          | City Centre Master Plan                                |
| <b>CRM</b>           | Customer Relationship Management                       |
| <b>DSI</b>           | Death and Serious Injuries from road crashes           |
| <b>ISA</b>           | Intelligent Speed Adaptation                           |
| <b>ITA</b>           | Integrated Transport Assessment                        |
| <b>ITF</b>           | International Transport Forum                          |
| <b>MoT</b>           | Ministry of Transport                                  |
| <b>NZTA</b>          | New Zealand Transport Agency                           |
| <b>OECD</b>          | Organisation for Economic Co-operation and Development |
| <b>ONRC</b>          | One Network Road Classification                        |
| <b>PBC</b>           | Programme Business Case                                |
| <b>PSG</b>           | Project Steering Group                                 |
| <b>PCG</b>           | Project Control Group                                  |
| <b>RIDS</b>          | Road Side Impairment, Distractions and Speed           |
| <b>RASF</b>          | Roads and Streets Framework                            |
| <b>SaAS</b>          | Safe and Appropriate Speed                             |
| <b>SMS</b>           | Safety Management System                               |
| <b>TCR</b>           | Traffic Crash Reporting                                |
| <b>TDM</b>           | Transport Design Manual                                |
| <b>Urban KiwiRAP</b> | Urban Kiwi Road Assessment Programme                   |
| <b>USRDG</b>         | Urban Streets and Roads Design Guide                   |
| <b>VKT</b>           | Vehicle Kilometres Travelled                           |

## Acknowledgements

We're very grateful to the following people whose effort, expertise and leadership has shaped Vision Zero for Tāmaki Makaurau:

**Tāmaki Makaurau Road Safety Governance and Leadership groups**

**Strategy working group:**  
Lisa Rossiter, Scott Webb, Todd Moore-Carter, Jim Fraser, Lucy Nie

**Strategic narrative and action plan framework:**  
Tony Bliss

**Safety performance indicator advice:**  
Colin Brodie, Judy Li

**Target setting advice:**  
Phil Harrison

**Māori outcomes advice and content:**  
Tipa Compain, Tui Gilling, Lillian Tahuri, Maea Kirkwood

**Project team for content creation, data analysis, reviews and stakeholder engagement:**  
Andrew Bell, Kitty Jan, Marina Palalagi, Lily Linton, Mayuri Bhole, Nicola Gray, Rebecca Ellery, Jennifer Fraser, Mitu Shekhawat, Ngaire Atmore

**Design:** Andy Taylor  
**Text editing:** Lizz McEaney  
**New photography:** Dirk Jutzas

Your contributions have been outstanding and we look forward to delivering together our aspiration of safe transport for all.

**Ping Sim and Bryan Sherritt  
September 2019**

