A safe, well connected and accessible land transport system is critical for the health and wellbeing of New Zealanders, and underpins our economy.

The national summary identifies the types of activities at a national ‘system-wide’ level that Waka Kotahi considers are needed to deliver on the government’s objectives for the land transport system and the step changes. It looks across the range of levers that we can use directly, or in partnership with others, to contribute to the future land transport system.

This section sets out:

• an overview of the land transport system from a national perspective
• national responses that Waka Kotahi will lead, or partner on with others, to contribute to the step changes at the national system-wide level.

This section should be read alongside the regional summaries, as the responses identified in the national summary will support step changes and desired outcomes in all regions.

OVERVIEW OF THE LAND TRANSPORT SYSTEM

A safe, well connected and accessible land transport system is critical for the health and wellbeing of New Zealanders, and underpins our economy. It supports our communities by connecting them to employment, education and essential services, at the same time getting goods to market.

A great land transport system offers choice in the way people move around, including walking and cycling and public transport, and connects road, rail and coastal shipping.

Roads are currently the backbone of New Zealand’s domestic transport system. These support many different modes of transport such as cycling, private vehicles and public transport.

By contrast, most of the rail network is used for freight and is effective at moving heavy goods over longer distances. There are commuter rail services in Auckland and Wellington, with light rail being planned in both cities, and there are some inter-regional passenger services.

The Cook Strait ferry services provide the vital road and rail link to move people and goods between the North and South Islands. Coastal shipping also provides an important way of moving large items, such as oil, logs, cement and fertiliser, on longer inter-regional journeys.

At a national level, our transport system is vital for the movement of visitors and freight between regions and islands. New Zealand’s economy is dependent on getting its goods to international markets and supporting tourism.

Freight volumes are forecast to increase in the future, consistent with our population growth and economic trends. The economic impact of COVID-19 (in the short term) and the transition to a lower-emissions economy (in the medium to longer term) are expected to impact freight volumes.

Development of the land transport system has, at times, been more focused on managing growth by building roads to increase capacity. This has led to widespread urban growth and a dependency on private car travel to move around.

The next 10 years will need to see a move towards more integrated land-use and transport planning. This will help shift us away from our reliance on single occupancy private vehicles and the dominance of roads to move freight. The Future of Rail project plans to integrate rail into the land transport system, ensuring it is planned, funded and maintained as part of this system.
NATIONAL RAIL NETWORK
Figure 11

STATE HIGHWAY ONE NETWORK ROAD CLASSIFICATION
Figure 12
NGĀ WHAKAUTU Ā-MOTU
NATIONAL RESPONSES

Waka Kotahi has a key role to play at the national or system-wide level in supporting the government’s objectives for the land transport system, and the step changes that we see are needed to achieve those objectives over the longer-term.

We already have work underway to support all the step changes but we are only in the early stages of developing targeted implementation plans for them. We will progress this work as a priority in coming years so that we can be transparent about the role we are playing and the benefits we are delivering nationally and for the regions.

We outline below some of the actions underway to support each of the five step changes, and where we see the need for further work to be targeted.
IMPROVE URBAN FORM

By encouraging well designed, compact, mixed-use and higher density urban development, we can make our towns and cities safer, healthier and more attractive places for people to move around. Good urban form also underpins efficient transport of goods to market and supports local economic growth.

The transport and land-use systems are interdependent. It is vital that the planning of land-use and transport infrastructure and services is integrated in order to maximise the potential of urban areas across the country.

In the Government Policy Statement on land transport (2018/19–2027/28, p.41), the Minister of Transport set out his expectation that:

‘The NZ Transport Agency will take a lead role in securing integrated planning of the land transport system’, including that we
‘encourage consistent, good practice planning so that the integration between transport use and land-use is well managed …’

This requires us to take a more active role in working with our partners to develop land-use plans, have input to statutory processes, directly deliver projects and provide standards and guidance. Of the five step changes in Arataki, improving urban form is the one where Waka Kotahi has least direct influence. We rely heavily on collaboration across central and local government, with co-investment partners and the wider development sector to deliver the outcomes and results expected.

Improving urban form has a strong inter-relationship with all other step changes, particularly transform urban mobility and tackle climate change. Any action taken to deliver improved urban form will be designed in a way that supports the delivery of related step changes using an integrated approach.

Our focus will be on effective partnering that shapes urban form in a way that makes our communities great places to work, live and play. This can be done by reducing the demand for travel and the distances to essential services, while improving access to employment and education, the supply of affordable housing and increasing access to public transport, walking and cycling options.

Principles for integrated transport and land-use planning will be set out in a good practice planning guide, which is expected to be published in mid-2020.

Key activities that Waka Kotahi will lead, or partner on, to improve urban form include:
- actively participating in spatial planning exercises in the six major urban centres
- developing a community of urban good practice planning across Waka Kotahi and the wider sector to embed the principles, skills and lessons required to collectively achieve change. The upcoming guide for good practice planning is the first step in that process
- establishing partnerships with key development agencies to jointly achieve outcomes required to shape urban form. Working with Kāinga Ora on housing development and the Ministry of Health and Ministry of Education to help facilitate good location and transport planning for new schools and major hospitals etc, will be key parts of delivering long-term change
- reviewing the way Waka Kotahi makes investment decisions to support the improving urban form step change
- completing work on a wide-reaching programme of activity that allows this step change to become embedded in the work of Waka Kotahi, in all phases of our planning, delivery and operating cycles
- investigating how Waka Kotahi uses all our available levers to help improve urban form, including our regulatory, economic and safety activities. This will include identifying how much it costs to build and maintain different development patterns, and metrics to measure the effectiveness of interventions made so we can target our investments more effectively
• evolving the One Network Road Classification (ONRC) to a One Network Framework (ONF) to better reflect both placemaking aspirations and wider transport outcomes. The ONF will provide a process that helps Waka Kotahi and partners to undertake the integration of land-use and transport and work through the intervention hierarchy when making planning and investment decisions. The ONF will provide tools to determine the importance of place and how transport should serve it. It will also determine the aspirational future network required to deliver the future land use
• support and implement the Accessible Streets regulatory package
• support development of a Roads and Street Framework to guide best practice in delivering urban transport infrastructure, placemaking and the treatment of street edges and adjacent public spaces
• support local government to implement Innovative Streets, to enable quick and cost-effective trialling of positive changes to street environments.

TRANSFORM URBAN MOBILITY

Transforming urban mobility means addressing the causes of car dependency and growing the share of travel by public transport, walking and cycling. Traditionally we have played a largely reactive role on this issue. We are well placed to have a more proactive role in accelerating the increased use of public transport, walking and cycling given our national scale and size of operation.

We can do this in three ways:

• Shaping urban form (see improve urban form on previous page).
• Making shared and active modes of transport more attractive: improving the quality, quantity and performance of public transport facilities/services and walking and cycling facilities so more people use them. The ONF will support this work by providing a framework to classify movement and place by street type. It will also identify the different transport priorities for each street type (eg, suburban, city centre, motorway) at different times of day, although in some situations provision of off-road connections may deliver the best solution for walking and cycling, etc.
• Influencing travel demand and transport choices: changing behaviour may also require a mix of incentives and disincentives to either discourage use of private vehicles or by making people more aware of their options and incentivising them to try something new. A wide variety of interventions can influence a shift in transport modes. As we do not directly have responsibility for all these levers, for example road pricing and parking policies, partnership, integrated planning and decision-making, and co-investment with others will be key to our success.

Further direction is provided in the 10-year plan for mode shift, Keeping cities moving, 2019.

Key activities that Waka Kotahi will lead, or partner on, to transform urban mobility include:

• partner to develop and deliver regional mode shift plans in Auckland (completed), Wellington, Christchurch, Hamilton, Tauranga and Queenstown, in partnership with local government
• play a greater role in land-use planning processes to better align growth patterns and transport investment
• work with local partners and develop best practice guidance to help streets become great urban places where people want to walk and cycle more
• focus network optimisation and operation activities on delivering mode shift
• enable rapid delivery of small-scale street changes that support mode shift, especially where they also help improve safety
• support mode shift through investment decision-making processes
• plan and deliver key strategic rapid transit, walking and cycling projects
• apply economic tools (pricing and incentives) to encourage people to change the way they travel
• partner with local government to deliver the national ticketing programme
• update parking, travel planning and street changes guidance to ensure they are aligned with best practice approaches that support mode shift
• take a greater leadership role in public conversations relating to mode shift and reducing car dependency
• track progress through a mode shift evaluation framework.

Shifting freight from road to rail can also support urban mobility, particularly where rail connects into ports and other freight hubs located in congested urban centres.

SIGNIFICANTLY REDUCE HARMS

SAFETY

The Road to Zero – Road Safety Strategy for New Zealand (2020-30) has a vision of a New Zealand where no one is killed or seriously injured in road crashes. This means that no death or serious injury while travelling on our land transport system is acceptable.

Adopting this vision means we need to build a land transport system that protects everyone from land transport trauma. We will help achieve this by embedding road safety principles and harm reduction in our transport design, regulation, planning, operation and funding.

A 40% reduction in deaths and serious injuries by 2030 will be achieved through action in five key areas:
1. Improve the safety of our cities and regions through infrastructure improvements and speed management.
2. Significantly improve the safety performance of the vehicle fleet.
3. Treat road safety as a critical health and safety at work issue.
4. Encourage safer choices and behaviour on roads.
5. Drive action through effective system management.

Public transport is the safest mode. Increasing use of public transport therefore plays a key role in reducing harm, along with initiatives to improve safety for vulnerable users including separated walking and cycling facilities or safe shared-use pathways, better lighting, and roading design which encourages slower speeds.

Measures to shift the freight task from road to rail (and potentially also to coastal shipping) also have a role to play in increasing the safety of road users.

Further direction is provided in the Ministry of Transport’s Road to Zero – Road Safety Strategy for New Zealand released for consultation in 2019.
Fifteen immediate activities that Waka Kotahi will lead, or partner on, to significantly improve safety in the next three years are contained in the Road to Zero Strategy Action Plan 2020–2022. They are:

1. Invest in safety treatments and infrastructure improvements.
2. Introduce a new approach to tackling unsafe speeds.
4. Enhance safety and accessibility of footpaths, bike lanes and cycleways.
5. Raise safety standards for vehicles entering the fleet.
6. Increase understanding of vehicle safety.
7. Implement mandatory anti-lock braking systems (ABS) for motorcycles.
9. Strengthen the regulation of commercial transport services.
11. Enhance drug driver testing.
12. Increase access to driver licensing and training.
13. Support motorcycle safety.
15. Strengthen system leadership, support and coordination.

Other safety work in relation to our regulatory function includes:

- rail safety
- speed management and safety rules
- strengthening operational coordination and intelligence sharing between agencies through the Road Safety Partnership
- addressing data and research gaps through the new Transport Evidence Base Strategy and new intervention modelling
- ongoing engagement activities to build public understanding and support for a Vision Zero approach to road safety.

HEALTH

In the short-term, our approach to delivering better health outcomes, particularly from harmful air and noise pollution and poor physical activity levels, will be through initiatives that target other step changes, such as improved urban form, improving urban mobility, increasing access to and the use of public transport, walking and cycling, and efforts to reduce carbon emissions. We will also continue to work to manage the noise impacts of transport through a mix of land-use planning and mitigation works.

Further direction is provided in ToitūTe Taiao – the Sustainability Action Plan.

Key activities that we will partner on, to improve public health include:

- emissions reduction interventions, specifically: - accelerating mode shift innovations, pilots and demonstrations that showcase the environmental and public health benefits of reducing emissions (eg low emission zones, healthy streets and other land-use management actions, described above under improve urban form and transform urban mobility)
- identifying new partnerships to co-design and deliver low emission, shared, safe and active transport initiatives (eg Ministry of Health) see tackle climate change.
TACKLE CLIMATE CHANGE

ADAPTATION

We have been managing resilience of the land transport system for some time. This step change calls for us to think about the impacts of climate change explicitly in our planning, design and maintenance of assets and decision-making when working with communities.

This step change will follow an adaptive approach, as climate change impacts will increase and we will need to adapt any mitigation actions to minimise their extent. Decisions we all make now will have long-lasting consequences either positively or negatively. Some decisions will need to be made ahead of when all the impacts are fully understood or felt so we minimise the costs of adjusting and maximise our chances of supporting resilient communities.

We will need to explore approaches such as blue-green asset planning (using water and green spaces to better complement each other), design and management to effectively manage the impacts of climate change.

We require different forms of engagement with communities as they make decisions about adapting or recovering from significant damage and disruption. We will need to work with others to better understand the impacts of sea level rise, more extreme weather on communities and the land transport system.

For more information, refer to the Resilience Framework adopted by the Waka Kotahi Board in April 2018.

Key activities that Waka Kotahi will lead, or partner on, to support adaptation to climate change are:

• Develop risk profiles of infrastructure and communities within regions.
• Understand routes that provide critical connections, the condition, the pressures faced and investment needed.
• Engage in place-based planning to avoid location of development in high risk locations.
• Enable rapid recovery following disruption to state highway networks, eg following landslips and flooding.
• Undertake continuous improvement in network resilience through maintenance, operations and renewals and agree process and timing for longer-term managed retreat.
• Engage in local processes to support community adaptation to impacts of climate change, especially sea level rise.
MITIGATION

Our approach to reducing transport greenhouse gas emissions is shaped by the Avoid – Shift – Improve model.

- **Avoid/reduce**: Help people avoid or reduce reliance on private motor vehicles through integrated land-use and transport planning.

- **Shift** the travel of people and freight to low-emission modes, public transport, active and/or shared transport modes.

- **Improve** the energy efficiency of the vehicle fleet, through things like fuel standards and incentives to support the uptake of low/no emissions vehicles.

All interventions will be required to meet the government and New Zealand’s commitment to reducing carbon emissions. There is a whole of government approach to improve the energy efficiency of the vehicle fleet. We are largely playing a supporting role, however will have a significant role in administering the government’s clean car standard and clean car discount.

We are better placed to play a leading role in helping people avoid or reduce their reliance on private motor vehicles, and/or shift to more efficient modes such as rail. Our strongest levers for change include planning and investment, partnering and capability, focused on the urban mobility interventions for shaping land-use, making shared and active transport modes more attractive, and influencing travel demand and choices.

Our initial focus will be to transform urban mobility in Auckland, Wellington and Christchurch. Reducing land transport carbon emissions in our largest urban areas will improve safety, public health and access outcomes.

Further direction is provided in Toitū Te Taiao – Sustainability Action Plan.

Key activities that Waka Kotahi will lead, or partner on, to reduce greenhouse gas emissions from transport include the following:

- Ensure greenhouse gas emission reduction is embedded in all decision making, strategic assessments, and planning.

- Develop programmes that are designed to deliver across multiple outcomes at the same time.

- Ensure planning for urban growth and intensification manages transport demand to reduce emissions.

- Optimise urban networks to manage demand and reduce emissions.

- Invest in low-carbon transport modes, infrastructure and services in high growth urban areas to support mode shift from cars to low-emission public transport, active and/or shared modes.

- Support road pricing in high growth urban areas to manage demand, support mode shift and reduce emissions.

- Provide ongoing parking management guidance and leadership.

- Support variable public transport pricing to manage demand, support mode shift and reduce emissions.

- Establish and support education and engagement partnerships around climate change mitigation and adaptation.

- Supporting the feasibility study for social leasing to help low-income households into safe and clean vehicles.

- Partnering to provide individuals and fleet owners with the knowledge and confidence to purchase and use electric vehicles.

- Partnering to de-carbonise the public transport bus fleet in major urban areas.
SUPPORT REGIONAL DEVELOPMENT

There is a need to support increased job opportunities, long-term economic development and better social inclusion in parts of the country that are lagging in a number of socio-economic areas. This step change focuses on working with our partners to understand how land transport can support existing industry strengths and harness new opportunities for economic growth, for example, by helping to attract and retain key employers and supporting communities in both lagging regions and deprived parts of urban centres.

We already contribute to wider government initiatives that improve access and socio-economic outcomes in the surge regions and areas in Auckland and Wellington. During the next 10 years, we will adopt a clearer understanding of the role of both transport and Waka Kotahi in supporting regional development. We will be more proactive in supporting change that will make a positive impact. To do this we will need to better understand the nature and scale of all costs and benefits. We will also focus our spending on agreed projects that directly benefit communities.

Key activities that Waka Kotahi will lead, or partner with others on, to support regional development are:

- Continue to ensure goods can get to market and businesses have access to labour markets.
- Support initiatives to increase access to employment, essential services and other opportunities in urban centres.
- Continue to contribute to a national network of cycle and walking trails connected to towns and cities and providing safe links between the New Zealand Cycle Trail Great Rides, Heartland Rides and other cycle trails, Te Araroa and other walking trails.
- Contribute to the development of regeneration plans for towns and villages to deliver improved amenity and accessible transport.
- Contribute to a national network of stopping places that support safety and journey experience and other functions, providing essential roadside facilities/infrastructure, services, amenities and access to attractions.
- Continue to support driver training and licensing for people not in employment, education or training, particularly in remote communities.
- Explore opportunities to support the mobile delivery of education and essential services in remote communities.
- Explore opportunities to support on-demand/shared transport between remote communities and larger centres to improve access to education, employment and essential services.
DELIVERING BASE LEVELS OF SERVICE

While Arataki focuses on delivery of the step changes, we also recognise there is a need to maintain appropriate base levels of service across the land transport system. This is particularly relevant around maintaining the network, system resilience, journey reliability and customer convenience.

We are guided by the ONRC for the levels of service needed on different parts of the road network. Work is currently underway to expand the ONRC to better reflect appropriate levels of service for public transport and recognise the need for roads to balance the movement of traffic and the role of streets as public spaces, particularly in urban centres.

We will continue to work with KiwiRail to understand the base levels of service required to support an effective rail system. The draft New Zealand Rail Plan (2019) outlines the government’s priority over the coming decade is for rail to become a resilient and reliable network. This will provide a platform for future investment to support growth in passenger and freight rail services.

SUPPORTING THE SECTOR

Waka Kotahi is responsible for several activities that benefit, and are on behalf of, the land transport sector. Many of these activities contribute to the five step changes and support ongoing delivery of base levels of service. A number of these are carried out in collaboration with KiwiRail, Kāinga Ora and MHUD, and our partners in local government, such as Regional Transport Committees, regional councils and territorial authorities.

Some examples of these activities are:

<table>
<thead>
<tr>
<th>Integrated planning</th>
<th>contributing to local government’s planning processes and strategic documents; setting policies and investing in public transport services delivered by local government; working with KiwiRail to plan integrated road-rail networks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Optimise the system</td>
<td>managing networks to prioritise the movement of freight and public transport; enabling a continuous programme of trials and innovations including Intelligent Transport Systems, high occupancy vehicles and active modes</td>
</tr>
<tr>
<td>Manage and operate system</td>
<td>data, information, models and analytical tools; national operational policy; standards, rules and guidelines for vehicles, networks and road users</td>
</tr>
<tr>
<td>Significant new infrastructure</td>
<td>joint planning with council partners, communications and programming of infrastructure improvements between Waka Kotahi and councils.</td>
</tr>
</tbody>
</table>
We do these things well but the government, Infrastructure Commission and our co-investment partners have different expectations of us, each other and how we work together. To play our part effectively and support the sector to deliver the step changes, Waka Kotahi will need to improve the way we do some things. We will look to:

• better align our planning, delivery, evidence and resources to contribute to integrated national planning that supports the outcomes being sought by the government and communities
• improve some of our relationships across the sector, eg with Māori and the health sector
• take a systems-based approach (across all levers and modes) to identify performance gaps
• partner with others to develop packaged responses for an outcome or place
• apply the intervention hierarchy at both programme and project levels to ensure that we are optimising interventions and investment
• engage more effectively in planning for urban form that reduces travel demand
• improve our analytical capability to model a range of options, impacts and responses to system needs
• improve our operational policies to maintain technical standards
• increase our commitment to innovation
• significantly increase our emphasis on behaviour change, travel demand management and transport operations
• ensure that planning and investment decisions are based on achieving an appropriate balance of transport options, so that each mode plays an appropriate role in moving people and goods
• increase investment in digital infrastructure.
ARATAKI – GLOSSARY OF KEY TERMS

**Access:**
enabling all people to participate in society through access to social and economic opportunities, such as work, education and healthcare.

**Active modes:**
walking, cycling, skating, skateboarding and other methods of travel that require physical activity for movement.

**Autonomous vehicle:**
a vehicle capable of travelling without the need for human input, by using a combination of sensors and software to control, navigate and drive the vehicle.

**Base levels of service:**
the essential benefits that the land transport system provides to customers, including safety, resilience, reliability and access across land transport modes. The appropriate base level of service varies in different corridors according to the nature and level of demand on each corridor. Base levels of service are maintained through the interventions we make to plan, maintain, manage, operate and regulate use of the land transport system. Levels of service for different types of corridor are defined in the One Network Road Classification. Work is underway to update this classification to better reflect urban settings and define levels of service for modes other than roads.

**Blue-green asset management:**
combining the design and management of transport infrastructure, water and green spaces to better complement each other, reducing the need for more expensively built infrastructure, while improving local environmental conditions and better preparing towns, cities and transport networks to adapt to the challenges of climate change.

**Coastal inundation:**
the gradual process of low-lying areas becoming drowned or submerged as a result of rising sea levels.

**Committed activity:**
money has been allocated for delivery of an intervention and contracts have been signed to undertake the work.

**Corridor:**
a linear transport connection that enables the movement of people and goods, using one or more modes.

**Demand management:**
refers to interventions which change the demand for transport. These interventions may seek to influence how, when and where people travel and freight is transported. The purpose of demand management is to ensure the transport system is utilised efficiently and effectively and to reduce the negative impacts of travel and freight movement.

**Emissions budget:**
the quantity of greenhouse gases that are permitted to be emitted (in total) over a specified budget period. In New Zealand emissions budgets are five yearly milestones which will set out a pathway to zero carbon by 2050.

**Intervention:**
the specific actions or integrated programmes of actions that result from the application of one or more levers.

**Intervention hierarchy:**
a hierarchy to guide the identification of transport responses, particularly when considering issues around growth management, network capacity and journey reliability. The hierarchy directs that alternative and option selection should start with the lowest cost alternatives and options before considering higher cost alternatives and options. The hierarchy considers integrated planning first, followed by demand management, then best use of existing network and lastly new infrastructure.

**Lever:**
the ways that Waka Kotahi can influence or apply pressure to the transport system, working individually or in partnership with others.

**Liveability:**
is the sum of the factors that add up to a community’s quality of life. Fundamental aspects of great, liveable cities include; robust and complete neighborhoods, accessibility and sustainable mobility, a diverse and resilient local economy, vibrant public spaces, affordable and diverse housing, and residents feeling safe, socially connected and included.

**Mode shift:**
increasing the share of travel by public transport, walking and cycling in towns and cities, in order to deliver a more accessible, safe and sustainable transport system.

**Nationally significant connection:**
connections that are critical to supporting the social and economic wellbeing of New Zealand. They link the largest population centres, major ports and airports, and provide the primary land-based connections between the Upper North Island, Lower North Island and South Island. They often carry high volumes of heavy vehicles and general traffic.

**National Land Transport Programme (NLTP) investment performance measures:**
the measures that will be used by Waka Kotahi and our investment partners to determine whether an investment has achieved its intended benefits.
Optimisation: extracting maximum utility from the land transport system including through the active management of networks, allocation of space within transport corridors and delivery of services.

Outcome: the result of a change (action or intervention).

Place-based: a general approach to urban and transport planning that focuses on place. It emphasises the look and feel of places and their form and character as a fundamental starting point for planning and development.

Placemaking: an approach to improving neighbourhoods, towns or cities through enhancements to the quality of public spaces. The approach has community-based participation at its centre, and builds on a community’s assets, inspiration and potential to deliver public spaces that contribute to people’s happiness and wellbeing.

Rapid transit: public transport capable of moving a large number of people, for example light rail and dedicated bus routes. Common characteristics of rapid transit include frequent services, fast loading and unloading capability, and largely dedicated or exclusive right-of-way routes.

Regionally significant connection: connections that are critical to supporting the social and economic wellbeing of a region. They link regionally significant places, industries, ports and airports, and provide the primary land-based connections between regions (sometimes including a lifeline function).

Reliability: the consistency or dependability of a particular trip’s travel time measured from day to day and/or across different times of day. Reliability is important to supporting economic activity by enabling the efficient movement of people and products via local, regional and international connections.

Resilience: is the transport system’s ability to enable communities to withstand and absorb impacts of unplanned disruptive events, perform effectively during disruptions, and respond and recover functionality quickly. It requires minimising and managing the likelihood and consequences of small-scale and large-scale, frequent and infrequent, sudden and slow-onset disruptive events, caused by natural or other hazards.

Safety: protecting people from land transport-related injuries and death.

Spatial planning: the process of giving geographical expression to a communities economic, social, cultural and ecological ambitions. Spatial planning incorporates evidence based analysis with a wider more inclusive approach with a range of stakeholders. This helps to ensure that the development and use of land can support desired community outcomes.

Step change: the areas where Waka Kotahi considers a step change is required over the next decade, in order to deliver on the government’s priorities and ensure a fit for purpose land transport system.

Tool: a mechanism or process used to assess, prioritise and deliver the interventions. Examples include the Economic evaluation manual and Investment Assessment Framework.

Vehicle kilometres travelled: the total annual vehicle kilometres travelled in an area.
REFERENCES – BIBLIOGRAPHY


Informed, engaged and increasingly self-sufficient communities
A system that is recognised as appropriately adapting to climate change
The reputation as highly responsive to significant disruption


