INTERNAL BRIEFING NOTE AHEAD OF MINISTERIAL MEETING

Subject	Toitū Te Taiao – Waka Kotahi's Sustainability Action Plan
Date	21 May 2020
Briefing number	BRI-1950

Contact(s) for telephone discussion (if required)				
Name	**Position**	**Direct line**	**Cell phone**	**1st contact**
Lisa Rossiter	Senior Manager Environment Sustainability	04 894 6436		✓
Greg Lazzaro	General Manager safety, Health and Environment	04 483 17561		

21 May 2020

Chief Executive

TOITŪ TE TAIAO – WAKA KOTAHI'S SUSTAINABILITY ACTION PLAN

Purpose

1. This briefing provides you with information on Toitū Te Taiao – Waka Kotahi's Sustainability Action Plan (Toitū) ahead of your meeting with the Minister of Transport, Hon Phil Twyford, and Associate Minister of Transport, Hon Julie Anne Genter at 9:30am on 25 May 2020.

2. Other attendees of the meeting are Greg Lazzaro, General Manager Safety, Health and Environment, Lisa Rossiter, Senior Manager Environment Sustainability, and representatives from the Ministry of Transport (MoT).

Background

3. On 8 May 2020, Waka Kotahi announced the launch of Toitū in the Minister's Weekly Report (Weekly Report #194 refers). Ministers have subsequently initiated a meeting to discuss the plan.

4. Minister Genter was involved throughout the development of the plan, providing feedback on drafts during 2019 and requesting progress updates. The latest correspondence is attached as Appendix A (NZT-4588).

5. Minister Genter's office has requested a Waka Kotahi official provide an overview of Toitū, followed by a roundtable discussion. In particular, Minister Genter would like to discuss the following:

    - how action 2 in work stream 1 will feed into MoT's TEAP work and the climate budgets being developed by the Climate Commission;
    - whether NZTA will be in a position in 2021 to apply an emissions lens to their assessment of RLTPs and its development of the NLTP (i.e. work stream 5); and
    - how NZTA plans to champion the action plan and get buy-in within the organisation.

6. Other areas of interest previously discussed with Minister Genter have included, green freight, clean car reforms and construction waste. These may also be areas of interest to Minister Twyford.

Suggested approach for the meeting

7. Nicole/Greg to introduce Toitū, signalling the importance of environmental sustainability and public health to Waka Kotahi, and our commitment to lift the focus on these areas - especially given climate changes.

8. Lisa to provide a brief overview of Toitū, explaining the four challenges the plan addresses, the principle-based approach we are taking, and the organising structure of six workstreams to deliver the first suite of actions by June 2021.

9. A discussion to follow on Minister Genter's specific questions and possible areas of interest to both Minister Genter and Minister Twyford.

Minister Genter's specific questions

- ***how action 2 in work stream 1 will feed into MoT's TEAP work and the climate budgets being developed by the Climate Commission;***

Toitū Workstream 1: Sustainable urban Access

Action 2: Size the land use/mode shift contribution to net zero land transport emissions 2050	2a. Support lead government agencies and the Climate Change Commission to understand the land use (Avoid/Reduce) and mode shift (Shift) contribution to achieving net zero land transport emissions, relative to vehicle fleet transformation (Improve)
	2b. Baseline the current and planned transport emissions profile of major urban areas targeted by *Keeping Cities Moving*
	2c. Identify the gap between baseline emissions and the scale of emission reductions required to deliver the land use/mode shift contribution to net zero carbon emissions 2050.

10. Action 2a:

Waka Kotahi has been working with MoT and the Climate Change Commission to grow their understanding of the range of land transport levers that can be used to reduce emissions. We are actively involved in the All of Government Climate Change Group, including the associated Data and Modelling Group. Waka Kotahi intends to become a signatory to the proposed Memorandum of Understanding between these groups and the Climate Change Commission.

Waka Kotahi is working directly with MoT on the Transport Emission Action Plan (TEAP). This is at a formative stage and we are working to inform the development of the TEAP to reflect the range of land transport levers available, inclusive of land use, a broad range of mode shift interventions (from infrastructure provision to travel demand management opportunities) and improving the energy efficiency of the vehicle fleet.

11. Action 2b:

Waka Kotahi has 2018 Greenhouse Gas (GHG) emission baselines for each of the cities in *Keeping Cities Moving*. These baselines include the relative contribution from light and heavy vehicles, and capture the urban centres as well as regional emissions.

12. Action 2c:

As indicated in the progress update provided to Minister Genter in December 2019 (NZT-4588 refers), the work to scale the emission reduction contribution of transport-related land use and mode shift interventions relative to vehicle interventions is complex. There are multiple models, owners and stakeholders, and no current models are wholly fit for purpose. Waka Kotahi is working collaboratively to enable a common understanding of the complexity and importance of this action through the All of Government Climate Change Data and Modelling Group, as well as through our interactions with the Climate Change Commission.

Waka Kotahi is also working closely with Auckland Council and Auckland Transport, through the proposed Auckland Transport Alignment Project (ATAP) update and the Supporting Growth

Alliance, to develop a joint understanding of the nature, scale and potential of land use and mode shift interventions to reduce the largest concentration of urban transport emissions in the country.

In addition to existing models, we are enhancing our own emission modelling capability and resources within Waka Kotahi. This includes work to develop 'Tauira o te Taiao' – an integrated and modular environmental impact model for land transport.

While we cannot yet scale the relative contribution of land use/mode shift interventions relative to vehicle fleet interventions for achieving net zero land transport emissions by 2050, we know the scale of the emissions challenge is so great that early, significant and sustained effort must be applied across all land transport levers for:

- Land use/mode shift interventions in major urban areas (to avoid/reduce reliance on travel by car and support mode shift from cars to public transport /active modes)

- National cross-government efforts to increase the uptake of low/no carbon vehicles, focusing first on the light vehicle fleet (Improving the energy efficiency of the vehicle fleet).

The scale of the challenge is such that no ambition is too big, and a programmed approach is essential. Transport related land use and mode shift interventions bring the added advantage of supporting a range of transport and wider benefits, such as congestion relief and public health improvements resulting from less noise/air pollution and more active travel.

Additional Comments on land use/mode shift

13. Prior to COVID-19, the draft Government Policy Statement (GPS) 2021 was amended to include a climate change strategic priority – importantly, to be delivered through the other strategic priorities. This provided a good platform to advance land use/mode shift. However, COVID-19 now presents both challenges and opportunities.

14. Challenges

In relation to land use/mode shift, COVID-related amendment to the GPS strategic priorities and/or significant revenue constraints may force a shorter-term focus within the GPS and other stimulus packages. Without adequate provisions in place, these could see adverse impacts on emissions in the long run and make future action to reduce emissions more expensive and difficult. In addition, revenue constraints may confine the National Land Transport Programme (NLTP) to a focus on maintenance and base case, leaving inadequate funding to pursue even moderate mode shift interventions in major urban areas. This may in turn be compounded by fiscal stimulus packages from other funding sources that do not include an adequate transport emissions focus (e.g. residential development in areas poorly serviced by low carbon transport options).

15. Opportunities

There are opportunities to pursue lower cost interventions and lock in some of the positive transport benefits experienced during the lockdown, such as working with partners for urban form that reduces reliance on travel by car, increasing focus on walking and cycling provision and promotion, and behaviour focused travel demand approaches (such as more extensive parking management interventions and commuter travel planning).

A review of ATAP is uncovering a lack of these softer, more moderate and lower cost interventions. Land use interventions can be particularly effective in avoiding or reducing reliance on travel by car. While land use interventions have a relatively long lag time, they are also critical for long term energy efficiency at a system level and may be one of the most cost-effective means of reducing emissions through avoidance of private vehicle travel.

- ***whether NZTA will be in a position in 2021 to apply an emissions lens to their assessment of RLTPs and its development of the NLTP (i.e. work stream 5);***

Workstream 5: Invest for sustainable outcomes

Action 1: Enable investment for land transport GHG emission reductions	1a. Embed long term emission reduction objectives and emissions-based thinking into planning, investment and accountability instruments, including national and regional land transport programmes
	1b. Design and implement a methodology to support GHG emission profiling and monitoring of national and regional land transport programmes and significant infrastructure with an intergenerational life
	1c. Work with central government partners to establish value for carbon aligned to international best practice to support assessment of carbon impacts.

16. Waka Kotahi is in the process of designing a methodology that will help us and local government partners to understand the potential emission reduction impacts of packages and programmes in Regional Land Transport Plans (RLTP) and the NLTP. A prototype is currently being tested and refined. Waka Kotahi is doing this independently and through a climate-focused review of ATAP; involving the Ministry of Transport, Auckland Council and Auckland Transport. We expect to be able to assess RLTPs and programmes such as the NLTP using this new tool in 2021.

17. In addition, Waka Kotahi has been amending investment and planning tools and guides to enable assessment of emissions impacts:

- New investment assessment tools will require mandatory assessment of emissions impacts.
- New business case guidance on how to consider emissions impacts.
- The next version of Arataki Our Plan for the Land Transport System will include regional data on emissions and guidance on considering emissions impacts.
- Our benefits framework includes GHG reduction benefits.
- Our Transport Agency Investment Proposal includes urban and sustainability initiatives to enable emission reduction objectives.

Back Pocket – how Ministers can further support an emissions reduction focus

18. Funding to continue construction of large scale transformative urban transport infrastructure (rail, bus rapid transit) in major urban areas combined with a continued focus on interventions that reduce emissions while also improving safety and access outcomes. This multi-outcome focus is very useful for helping to reshape investment and planning processes by promoting win-wins ahead of trade-offs.

19. A requirement in the next GPS, and in other land transport packages to:

- Consider long term impacts of proposals, including emissions (and also inclusive of safety outcomes and long term cumulative adverse environmental and public health impacts),
- Promote programmes (rather than individual projects) optimised for emission reduction, particularly in major urban areas,
- Redesign, reconsider or design mitigations for programmes that have an adverse impact on emissions.

20. Provide stronger signals for pursuing cost-effective and moderately scaled interventions to reduce emissions, e.g. land use interventions to avoid/reduce travel by car in major urban areas and support a shift to energy efficient modes; lower cost optimisation interventions to reprioritise space on the network; more walking and cycling interventions; behaviour change approaches such as parking management and commuter travel planning.

21. Address issues of mandate and all of government outcomes related to land use decisions, particularly in high growth areas. Getting land use settings right for growth and emissions is a

challenge. Some initiatives that focus on increased provision for residential development, including affordable housing, risk increasing emissions unless they are purposefully designed to reduce reliance on travel by car. Getting land use and transport right in growth contexts requires multiple agencies to work together and enabling policy and investment settings.

- ***How NZTA plans to champion the action plan and get buy-in within the organisation.***

22. Delivering Toitū is a 'Significant Activity' in our Statement of Performance Expectations for 2020/21 (reflecting Ministers Letter of Expectations). A range of activities are underway to build awareness, momentum and change, including:
    - integration of sustainability priorities into new Waka Kotahi strategy development process (and flow-on into future business planning processes),
    - regular messaging from Board and Executive Leadership Team about the importance of this focus,
    - establishment of internal Kaitiaki Group to build momentum amongst staff,
    - development of a Toitū dashboard is underway to provide regular snapshots of progress.

Possible areas of interest for Minister Genter and Minister Twyford

23. Green Freight

    - Heavy freight vehicles account for approx. 26% of land transport emissions (MoT 2018 Vehicle Stats).
    - Productivity Commission Low Carbon Paper identifies the pathway for decarbonising heavy freight is less clear than for light vehicles. Alternative energy sources and mode-shift for heavy freight are not clear cut.
    - Toitū sets out how we will support partners and the sector to identify a roadmap for safe and clean freight vehicles – and we have had input to the MoT's Green Freight Paper.
    - Toitū also contains a longer-term action to explore opportunities to reduce in-service fleet harm and emissions (all vehicles).

24. Public Transport buses

    - Buses are a small percentage of the heavy vehicle fleet and they represent a small contribution to GHG emissions, although diesel buses in built up areas can increase exposure to harmful air pollution.
    - The Requirements for Urban Buses are being amended to reduce emissions from the bus fleet.
    - Waka Kotahi is supporting partners in major urban areas with plans to transition to a low/no carbon bus fleet. This transition is not straight forward: upfront capital costs of purchasing low/no carbon vehicles is very high, although operating costs are generally lower. There are significant issues associated with location and provision of charging infrastructure, and the impact of public transport bus charging on the electricity supply and infrastructure.

25. Car reforms

- Waka Kotahi remains poised to administer the government's clean car reforms when approved. In the meantime, actions in Toitū include:

  i) Supporting the feasibility study for social leasing to help low income households into safe and clean vehicles (with the Ministry of Business, Innovation and Employment),

  ii) partnering to provide individuals and fleet owners with the knowledge and confidence to purchase and use electric vehicles,

  iii) exploring opportunities to reduce in-service fleet harm and emissions.

26. Construction waste

- Toitū Environment workstream contains a headline action to develop and embed a resource efficiency and waste minimisation policy. This is being developed at pace with additional resource so that new requirements can be driven through procurement mechanisms and influence current and pending projects (including NZ Upgrade Programme).

Attachments

Appendix A: NZT-4588 - latest correspondence between Board Chair and Minister Genter regarding Sustainability Action Plan (18 December 2019).

Appendix B: Toitū Te Taiao – our Sustainability Action Plan (April 2020)

It is recommended that you:

1. **Note** the contents of this briefing

.....

Lisa Rossiter

Senior Manager Environment Sustainability

.....

Nicole Rosie

Chief Executive

Date: 2020

Appendix A

WAKA KOTAHI
NZ TRANSPORT AGENCY

50 Victoria Street
Private Bag 6995
Wellington 6141
New Zealand
T 64 4 894 5400
F 64 4 894 6100
www.nzta.govt.nz

18 December 2019

Hon Julie Anne Genter
Associate Minister of Transport
Private Bag 18888
Parliament Buildings
Wellington 6160

REF: NZT-4588

Dear Minister

Waka Kotahi NZ Transport Agency Sustainability Action Plan: Update on actions to be progressed

Thank you for your feedback on the Transport Agency's draft Sustainability Action Plan. I appreciate your commendation of its approach.

In your feedback, you asked the Transport Agency to prioritise work to help the Government and the Interim Climate Change Committee understand the gap between a business-as-usual approach and the Government's emission reduction targets, and the scale and pace of change required from mode shift and vehicle fleet electrification to achieve the Government's targets.

You also identified the following actions from the Sustainability Action Plan as priorities to progress in the next eight months:

- Baseline the current and projected emissions profile of each of the major urban areas
- Scale the urban mode shift contribution to net zero emissions 2050
- Embed long term emissions reductions into planning and investment instruments.

I can advise that the Transport Agency is already progressing your priorities. How the issues are being addressed and the next steps are set out in the table attached to this letter.

The newly-appointed Transport Agency Board will consider an implementation update on the Sustainability Action Plan in early 2020.

Yours sincerely

Brian Roche

Sir Brian Roche
Chair, Waka Kotahi NZ Transport Agency

Appendix 1: Progress update on priorities identified by the Associate Minister of Transport

IDENTIFIED PRIORITIES	PROGRESS SO FAR AND NEXT STEPS
Prioritise work to help Government and the Interim Climate Change Committee (pending the Climate Change Commission) to understand the scale of the mode shift contribution to emissions reduction	This work is underway through Workstream 6: *Foundations for enduring success* and its actions relate to informing and shaping policy settings. The Transport Agency's initial focus has been on building awareness with the Ministry of Transport, the Ministry for the Environment and the Interim Climate Change Committee of a range of levers, in addition to vehicle fleet electrification, that can deliver emissions reductions, e g mode shift. Engagement with these agencies will remain an ongoing focus for us. The Transport Agency takes a broad view of mode shift. It encompasses a range of demand management interventions such as integrated land use and transport planning to help people avoid or reduce reliance on cars; increased provision of shared/active mode choices; optimisation; pricing and other incentives. **Next steps** are to scale the mode shift contribution to net zero land transport emissions relative to vehicle fleet electrification. The actions below form part of this task.
Baseline the current and projected transport emission profiles of major urban areas	This work is underway as part of Workstream 1: *Sustainable urban access.* High level emission profiles of major urban areas (2018 baseline) is known, using the Transport Agency's Vehicle Emissions Mapping Tool. **Next steps** include designing a methodology for determining the current and projected emission profiles for the NLTP, RLTPs, and major infrastructure with intergenerational impacts. This work is being commissioned.
Scale the urban mode-shift contribution to net zero 2050 emissions (relative to vehicle fleet electrification)	This work is underway as part of Workstream 1: *Sustainable urban access.* The first challenge is to understand the current transport models in use in New Zealand, and their advantages and limitations vis-a-vis mode shift and emissions reduction. This work has been commissioned Preliminary findings are that none of the models reviewed can robustly project mode shift changes as a result of different interventions. Limitations of current models include weaknesses in the treatment of public transport, active modes and land use. However, some scenario-based models (including the model behind the Ministry of Transport's Transport Outlook: Future State), could be set up to test a range of settings and variables on mode shift. **Next steps** include sharing our findings with relevant partners (central and local government); determining what kind of modelling is required to support this task; and identifying who is best placed to manage the model and the task. In the first instance, we will work with the Ministry of Transport to share review findings and define a way forward.

IDENTIFIED PRIORITIES	PROGRESS SO FAR AND NEXT STEPS
Embed long term emission reductions into planning and investment instruments	This work is underway as part of Workstream 5: *Invest for sustainable outcomes*. A set of actions has been integrated into the joint Transport Agency/Ministry of Transport Investment Decision Making Framework Review. These actions include identifying and building mechanisms for embedding emission reduction requirements into planning and investment instruments; designing a methodology to support the Transport Agency and investment partners to set and monitor land transport emission reduction targets; working across government to establish consistent values for carbon. The methodology work forming part of the baseline action above is part of this action. **Next steps:** A critical enabler of this task is the Transport Agency's position on urban land use and how it will use its investment levers for a range of outcomes, including long term emission reductions. The conversation has been initiated within the Transport Agency and has critical connections with wider government priorities for urban development.

Appendix 2

TOITŪ TE TAIAO OUR SUSTAINABILITY ACTION PLAN

OVERVIEW | APRIL 2020

WAKA KOTAHI
NZ TRANSPORT AGENCY

New Zealand Government

Waka Kotahi NZ Transport Agency
Published April 2020 | 20-085

NZBN: 9429041910085

ISBN 978-1-98-856171-4

KARAKIA

Mai ea te tupua
Mai ea te tawhito
Mai ea te kāhui o ngā Ariki
Mai ea tāwhiwhi ki ngā Atua

Tēnei ra te mauri nui, te mauri roa,
te mauri tapu, te mauri ka whakapiki,
te mauri ka whakakake

Te mauri o Rangi e tū iho nei
Te mauri o Papatūānuku i takoto mai nei
Te mauri tapu o ngā wai Māori
Te mauri tapu o ngā wai tai

Kia tau te mauri ki runga ki ēnei taura,
ki ēnei tauira

Tēnei te matatau ka eke, whakatū tārewa
ki te rangi

Ūhi wēro, tau mai te mauri

Haumi ē, hui ē, taiki ē!

Te Waka Kotahi invokes the inspiration and guidance from the universe and the gods.

We invoke every encapsulating life force, the ever presence life force, the sacred life force, the life force of our sky father and our earth Mother.

The life force of the water of life, the life force of the sea water, these life forces consume us.

Let us attain the sacred knowledge from the highest heavens to look after the mauri.

Hold fast, hold strong, and let it be done!

MIHI

E tū whakaiti nei tātou i raro i a Ranginui,
i runga i a Papatūānuku, e tītiro kau ana ki
ngā maunga whakahī me ngā tini uri o Tāne.

Ka hoki ngā mahara ki te tini me te mano
kua huri kaweka nei, he tangi apakura mō
rātou katoa, haere i runga te rangimārie.

Ka hoki nei ki a tātou te hunga ora

tēnā tātou katoa.

Anei he rautaki toitū mō Waka Kotahi,
hei aratohu i a tātou mahi.

Kia mahi tahi ai tātou ki te tiaki i te taiao.

Mā tō rourou me taku rourou ka ora
ai te taiao.

Waka Kotahi, tukuna tō wairua kia rere.

Tīhei mauri ora!

We stand humbly under the sky and on our sacred earth mother we look at the impressive mountains and the many different children of Tane

Our thoughts turn to the many who have departed this life, we sing a final lament to them all, farewell in peace.

We return to all of us the living salutation to us all

Please find our sustainability plan a guide for our future work.

As we work together to nurture and look after the world around us

With your basket of knowledge and our basket of knowledge we can make the world a better place

Waka Kotahi let your spirit soar.

This Karakia and Mihi were gifted to reflect the aspirations and desires of Toitū Te Taiao Our Sustainability Action Plan, with the goal to leave our planet in a better condition for our grandchildren. It calls upon us all to do our part in the protection of the earth and the waterways and seeks celestial knowledge to help support our physical actions to uplift the mauri of the Taiao (Environment).

OUR VISION IS FOR A LOW CARBON, SAFE AND HEALTHY LAND TRANSPORT SYSTEM

CONTENTS

TE WHAKAKITENGA OUR VISION 2050

A LOW CARBON, SAFE AND HEALTHY LAND TRANSPORT SYSTEM

Waka Kotahi NZ Transport Agency has a vision for a sustainable, multi-modal land transport system where public transport, active or shared modes are the first choice for most daily transport needs. Towns and cities are re-shaped to reduce reliance on cars and support active, healthy and shared transport choices. Where people and business require motorised travel, it is low carbon, safe and efficient.

In regional and rural Aotearoa New Zealand, provision for efficient freight movement and attractive tourism routes treads lightly on the land and is sensitive to natural and built environments.

The land transport system is an exemplar of sustainable management supporting attractive and liveable environments for people and ecosystems to thrive. Avoiding harm is valued, the natural, cultural and built environment is maintained, protected and enhanced, and harm is remedied.

Our vision responds to some of the greatest challenges Aotearoa and the world are facing: an urgent need to reduce land transport emissions and limit global warming; poor levels of physical activity and associated public health outcomes; threats to indigenous biodiversity and water quality and escalating resource use.

Our vision also responds to the opportunities that are particular to Aotearoa: protecting our unique flora, fauna and Māori cultural heritage not found anywhere else in the world; and supporting grass-roots, community-led actions to identify and protect what is important to our culture, our communities and the environment we call home.

OUR FOCUS

Toitū Te Taiao Our Sustainability Action Plan sets out the commitment of Waka Kotahi to environmental sustainability and public health in the land transport sector. It describes how Waka Kotahi will use the levers within our control and influence to deliver on our Vision.

Arataki Our Plan for the Land Transport System 2021-2031 affirms our focus on reducing transport greenhouse gas emissions to tackle climate change and support the transition to a low-emission economy; and improving public health as part of transitioning to a safe and healthy land transport system.[1] Toitū Te Taiao contains the steps we will take to deliver these objectives.

MĀTĀPONO: OUR PRINCIPLES

KAITIAKITANGA[2]

We recognise the environment is a taonga that must be managed carefully. We also recognise that Māori have a responsibility and obligation of care over their communities and environments.

RECOGNITION OF CULTURAL VALUES

We recognise and provide for Māori perspectives, tikanga (customs) Te Reo Māori and kawa (protocols) in the work we do.

STEWARDSHIP

We take a long-term view to ensure a sustainable transport future and conservation of resources.

PRECAUTIONARY

When an activity raises threats of harm to human health or the environment, we take precautionary measures.

EQUITY

We consider broad equity impacts of land transport interventions, including intergenerational impacts.

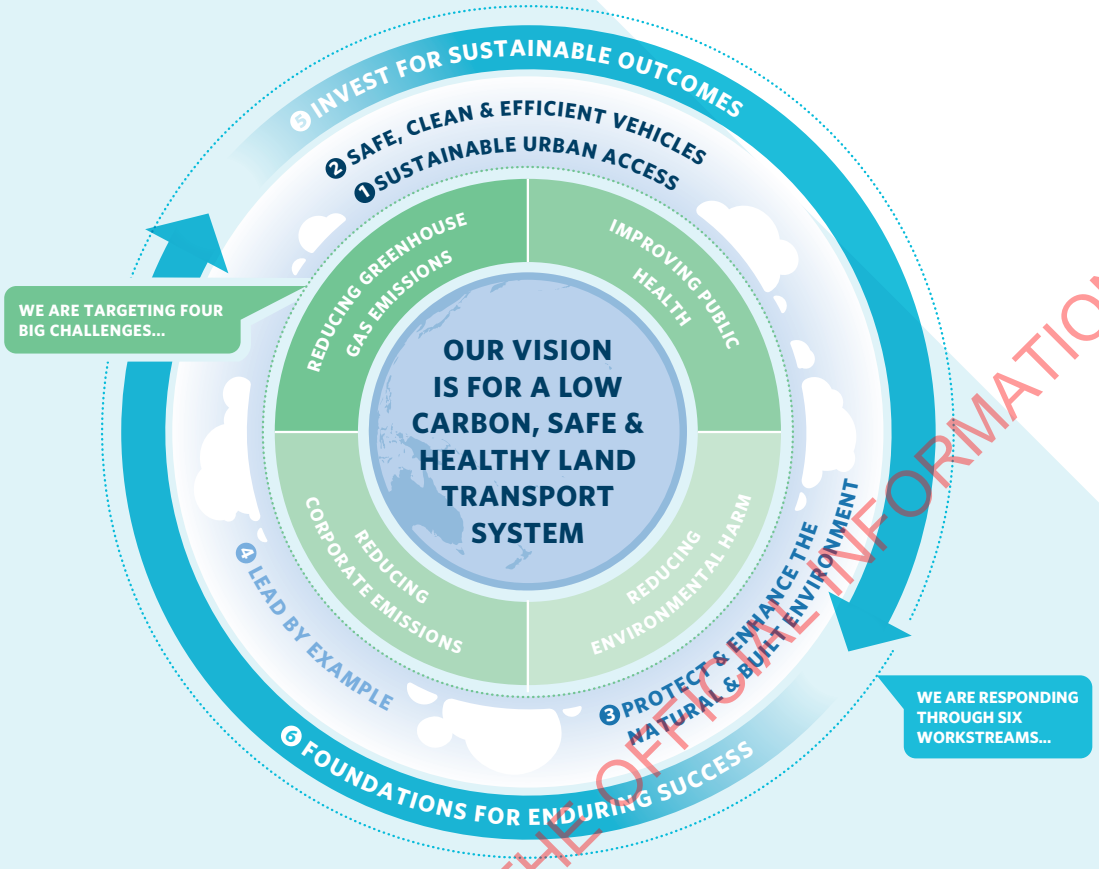
REMEDIATION

We put right elevated harm arising from the land transport system.

COMPREHENSIVE

We consider social, cultural, environmental and economic costs and benefits, including those that are indirect, long-term and not monetized.

TOITŪ TE TAIAO AT A GLANCE



1 SUSTAINABLE URBAN ACCESS

Using our planning and investment levers to reduce emissions and improve public health through interventions that:

- Avoid or reduce our reliance on travel by car
- Shift people to shared/active or low carbon modes

2 SAFE, CLEAN AND EFFICIENT VEHICLES

Using our regulatory lever to reduce emissions and improve public health through interventions that:

- Improve vehicle fleet efficiency

3 PROTECT AND ENHANCE THE NATURAL AND BUILT ENVIRONMENT

Using our planning, infrastructure management and procurement levers for system-wide environmentally and socially responsible practice

4 LEAD BY EXAMPLE

Reducing business emissions and modelling sustainable behaviours, internally and externally

5 INVEST FOR SUSTAINABLE OUTCOMES

Re-calibrating Waka Kotahi planning and investment settings for sustainable outcomes

6 FOUNDATIONS FOR ENDURING SUCCESS

Establishing the building blocks for enduring success and continuous improvement

TOITŪ TE TAIAO RESPONDS TO FOUR BIG CHALLENGES

OUR LONG TERM OUTCOMES TO 2050

REDUCING GREENHOUSE GAS EMISSIONS

- Reducing land transport greenhouse gas (GHG) emissions to mitigate climate change

  NOTE: Climate change adaptation is managed by our Resilience Plan

- Net zero land transport GHG gas emissions by 2050

IMPROVING PUBLIC HEALTH

- Reducing harmful land transport related air and noise pollution
- Enabling more people to safely use active modes

- No harm from land transport air and noise emissions
- Land transport supports physically active and healthy travel options

REDUCING ENVIRONMENTAL HARM

- Reducing adverse effects of land transport on biodiversity and water quality
- Improving resource efficiency and waste management

- The land transport network is managed to support and enhance indigenous biodiversity
- Water bodies are protected from adverse effects of land transport storm-water run-off
- We use resources and energy sustainably

REDUCING CORPORATE EMISSIONS

- Reducing our corporate carbon footprint

- Waka Kotahi is carbon neutral

REDUCING GHG EMISSIONS AND IMPROVING PUBLIC HEALTH

EXPLORING OUR CHALLENGES

CLIMATE CHANGE MITIGATION: REDUCING EMISSIONS

Climate change is impacting our planet[3]

Although Aotearoa is a small emitter by global standards, our per person GHG emissions are amongst the highest in the OECD. We're not yet pulling our weight in the global challenge to reduce emissions; and Aotearoa is now committed to reducing GHG emissions to net zero by 2050 (excepting biological methane).

Land transport is part of the problem

Transport accounts for about 20% of Aotearoa's GHG emissions, 90% of which arise from road transport. The light vehicle fleet accounts for 73% of road transport emissions and is the fastest growing source of them. These emissions are concentrated in our major urban areas.[4]

The scale of the challenge is immense

Emission reduction budgets will soon apply to the land transport system.[5] It's a huge challenge, requiring a transformation in urban travel choices and the vehicles we travel in.

To date, efforts to reduce emissions have tended to focus on transitioning to a low/no carbon light vehicle fleet and supporting the uptake of electric vehicles (EVs). Meeting the 2050 target by this mechanism is a challenge of immense proportions, requiring over 140,000 fossil fuel vehicles to be replaced by low/no carbon vehicles every year from 2020 to 2050.[6]

By mid-February 2019, there were just over 19,500 low/no carbon vehicles in the fleet. It's taken seven years to get this far.[7] While the pace of uptake has seen a big increase since 2017 – the pace required is far, far greater. Additional actions beyond the widespread uptake of electric vehicles are required.[8]

PUBLIC HEALTH: AIR, NOISE, PHYSICAL ACTIVITY

Our land transport system could be safer, healthier and more active

The land transport system is not as safe as it could be. In 2019, 353 people were killed on our roads, and 2,562 were seriously injured. This comes at an annual social cost of $4.62 billion.

Air emissions play a role in shortening the lives of over 250 people a year. Of most concern are fine particles and oxides of nitrogen from the tailpipe, brakes and tyres of vehicles.

Exposure to high levels of noise is linked to health issues such as obesity, hypertension and heart disease, stress and anxiety. About 38,000 people are exposed to high levels of road noise. More than 500,000 people are exposed to potentially unhealthy noise levels if we use health-based criteria from the World Health Organisation.

In Aotearoa, in 2016/17, only half of adults (15 years and over) were physically active (at least 30 mins on 5 days per week) and 13% of adults did less than 30 minutes per week. Nationally, 83% of journeys are by car, 12% are by walking, 1% by cycling and 3% by public transport. Major urban areas are improving, but active transport mode share is low by international standards.

Our car dependency is part of what explains our high per capita emissions.

The adverse public health impacts of car dependency are of a similar or even greater scale to our road trauma statistics – but they are less well recognised.

OUR OPPORTUNITIES AND APPROACH

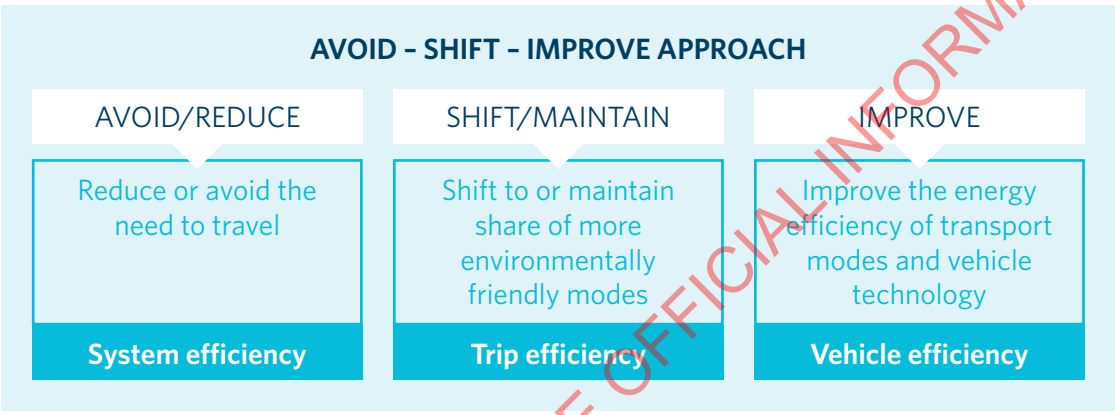
Our opportunities

We have an opportunity to galvanise a sustainable urban transport and liveability transformation.

- Through our planning and investment levers we can harness emission reduction targets to shape land use and mode shift interventions that unlock climate, health and accessibility benefits.
- Through our regulatory lever we can support the transition to a low carbon vehicle fleet.

Our approach

Our approach is shaped by the ***Avoid – Shift – Improve*** model.[14]



AVOID/REDUCE interventions aim to avoid or reduce the need to travel, or the time or distance travelled by car while improving accessibility, eg through integrated land use and transport planning for urban form that supports well-connected multi-modal access to local services and employment. This is critical for long term emission reductions at a system level; and brings many other transport, public health and environmental benefits, through reduced air and noise pollution, increased levels of physical activity, reduced congestion, better connected communities and improved safety.

SHIFT/MAINTAIN focuses on shifting people who need to travel from cars to more energy efficient modes such as public transport and active or shared modes, eg through better provision of low carbon travel options and incentives to choose them.

IMPROVE focuses on improving the energy efficiency of motorized vehicles (eg through fuel standards or EV uptake); and optimization of transport infrastructure and operations for more efficient vehicle movement.

Current cross-government efforts are focused on actions to 'improve' the vehicle fleet.[15] It's right to put a lot of effort here as improving the vehicle fleet will yield the greatest transport GHG emission reductions in time. However, additional actions will be required to get us to net zero land transport emissions by 2050 – and to address challenges associated with car dependency such as congestion, urban sprawl and inequitable access to travel options.[16]

WHAT WE WILL DO

Rising to the emissions challenge requires that 'Improve' actions are complemented by 'Avoid' and 'Shift' actions, focused on cities where emissions are most concentrated. We will support this through two complementary workstreams:

WORKSTREAM 1: SUSTAINABLE URBAN ACCESS

Focus: Using our planning and investment levers to influence urban land use decisions and rethink how cities manage growth (Avoid/Reduce interventions); and accelerate mode shift to low carbon, active and/or shared mobility (Shift interventions).

Summary actions Headline actions to June 2021

Define and embed a strategic approach for Waka Kotahi on urban form and transport planning for sustainable development that reduces emissions, improves access and liveability.

Size the mode shift contribution to net zero land transport emissions 2050: Support lead government agencies and the Climate Change Commission to understand the urban form and mode shift contribution to achieving net zero land transport emissions, relative to improving the vehicle fleet so that achievable emission reduction interventions, objectives and targets can be set.

Additional actions to be prioritised and sequenced for the next three years

- Partner for innovation, pilots and demonstrations of low carbon, safe and healthy transport choices
- Partner to set emission reduction objectives for mode shift plans in our fastest growing cities
- Partner for a pathway to sustainable transport in urban areas outside of *Keeping Cities Moving*[17]
- Partner for clean and efficient movement of inter and intraregional freight (eg land use, journey management, mode shift)
- Develop best practice guidance for low carbon, safe and healthy transport choices in urban areas.

WORKSTREAM 2: SAFE, CLEAN AND EFFICIENT VEHICLES

Focus: Using our regulatory lever and touchpoints and our information and promotional expertise to support efforts that Improve the energy efficiency of the vehicle fleet. This includes support and administration of the government's clean car reforms, when approved; other actions to support the uptake of electric vehicles; and partnering for solutions to decarbonise public transport buses and heavy vehicles.

Summary actions Headline actions to June 2021

- Gear up and administer the Government's proposed Clean Car Discount and Clean Car Standard when approved.
- Support the feasibility study for social leasing to help low income households into safe and clean vehicles.
- Partner to provide individuals and fleet owners with the knowledge and confidence to purchase and use electric vehicles (charging infrastructure; information and education)

Additional actions to be prioritised and sequenced for the next three years

- Explore opportunities to reduce in-service fleet harm and emissions (air, noise, GHGs)
- Partner to decarbonise the public transport bus fleet in major urban areas
- Support partners and the sector to identify a roadmap for safe and clean freight vehicles

REDUCING ENVIRONMENTAL HARM

EXPLORING OUR CHALLENGES

The land transport system is a substantial presence in our natural and built environment, traversing many sensitive habitats, waterways and areas of significant cultural and heritage value. Just as significant as the 'footprint' of the land transport system, is the kind of urban land use and development it enables. Productive land and loss of native land cover, habitats and biodiversity are casualties of urban sprawl.

Environment Aotearoa 2019 identifies the land transport system as a contributor to environmental degradation through its through its climate-changing greenhouse gas emissions, land use impacts, its air and water pollution and its significant footprint on areas with sensitive habitats and waterways. This report identifies that 3,747 of species native to Aotearoa are threatened or at risk of extinction. The land transport system has played a part in this.[18]

The national road network is 94,000 km long. Waka Kotahi is responsible for state highways which are 12% or 11,000 km of the total network. We invest approximately 50% of the cost of looking after the remaining 83,000 km of local roads managed by Road Controlling Authorities.[19] Building, maintaining and operating this land transport system consumes large quantities of fossil fuels, virgin materials such as aggregate and other resources. The construction and demolition industry is one of the largest waste producing industries in Aotearoa, contributing about 50% of all waste to landfills and most clean fill waste.[20] Much waste from land transport construction and demolition is not routinely recycled, and the use of recycled or alternative materials in new builds is limited.

OUR OPPORTUNITIES AND APPROACH

Our opportunities

We have an opportunity to shape transport sector-wide sustainable management practice.

Our environmental practice is sound and sometimes leading, however we are currently focused on meeting the requirements of the Resource Management Act 1991 (RMA). We have an Environmental and Social Responsibility Policy and supporting standard; we use sustainability rating tools, have a suite of social and environmental contract specifications and we deploy progressive planning and procurement approaches. There is a great opportunity to review our policy and extend these approaches, embed them into our core practice and secure them through our procurement lever for a step-change in sustainable management.

There is also a big opportunity to pursue innovation in resource efficiency and waste minimisation by adopting a circular economy approach: designing out waste and pollution, keeping materials in use, regenerating natural systems, and repurposing structures and cultural heritage assets.

The scale of our investment, management of the state highway network and other infrastructure and our responsibility for procurement settings offer the potential for us to positively influence the management of all 94,000 km of Aotearoa's road network and the natural, cultural, heritage and built environment it traverses.

Our approach

Our infrastructure management, planning and procurement levers are a powerful mechanism for change.

We are the State highway manager, a co-investor in local roads and responsible for provision of other significant infrastructure on behalf of government. Our procurement settings and practices are at the frontline of our ability to influence the sustainable management of the land transport system. Getting our procurement settings in the right place to do this means reviewing our Environmental and Social Responsibility Policy and our Environmental and Social Responsibility Standard, defining our requirements, embedding them in contract specifications and procurement processes, and monitoring and managing performance more effectively.

WHAT WE WILL DO

WORKSTREAM 3: PROTECT AND ENHANCE THE NATURAL AND BUILT ENVIRONMENT

Focus: Using our land transport infrastructure management, planning, procurement and co-investor functions to set and embed sustainable management practices into the core practice of Waka Kotahi and the sector for managing and developing the land transport network and the natural, cultural, heritage and built environment it interacts with.

Summary actions Headline actions to June 2021

- Review and update our Environmental and Social Responsibility Standard to ensure tools, guidance and requirements give effect to a refreshed Environmental and Social Responsibility Policy and enable consistent management and monitoring of environmental performance (especially biodiversity and water quality); social, cultural and heritage outcomes; and public health outcomes (related to air and noise emissions).
- Leverage procurement for a step-change in sector environmental and social responsibility practice: embedding sustainable management requirements into contract documentation.
- Develop and embed a resource efficiency and waste minimisation policy.

NOTE: The Foundations for Success workstream holds the related headline action for reviewing our Environmental and Social Responsibility Policy, inclusive of establishing significance and remediation policies. This action is in the Foundations package as its application extends beyond the functions of Waka Kotahi called out here.

Additional actions to be prioritised and sequenced for the next three years

- Deliver part or all, of the noise remediation programme as funding allows.
- Develop an integrated national asset management system, toolkit and data standard to support data capture and analytics, management and monitoring of environmental assets.
- Improve performance monitoring, audit, compliance and incident management functions.

WAKA KOTAHI CORPORATE SUSTAINABILITY

EXPLORING OUR CHALLENGES

Our business travel emissions

Where we can make comparisons with other government agencies, our emissions are high, driven by business travel.[21] In calendar year 2018, about 94% of our GHG emissions arose from business travel, primarily domestic air travel. Domestic air travel emissions on their own make up more than 80% of our travel emissions, with long and short haul international air travel making up close to 5% of emissions.

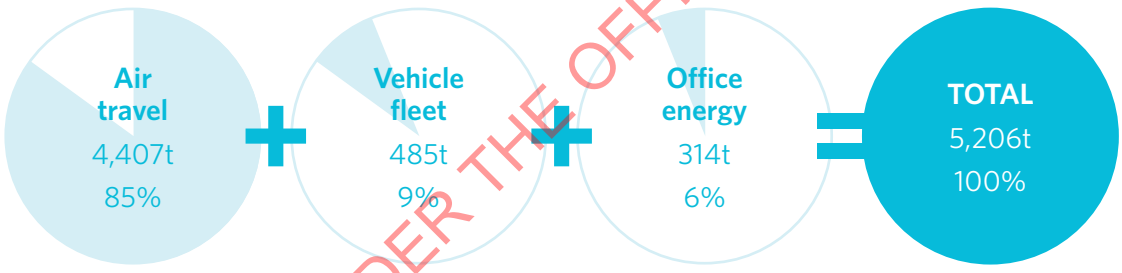
Our vehicle fleet emissions

In line with Government expectations for the public sector, we are transitioning our vehicle fleet to all new vehicles being 100% electric (as far as practicable) by 2025.[22] We have 164 fleet vehicles, 23% of which are EVs. We are transitioning our fleet and our vehicle fleet emissions profile is relatively low compared to many other government agencies. There is potential to do better as utilisation of these vehicles is low.

Our office energy

Our data is incomplete for waste and electricity emissions, but we've made a start on improving this.

Our estimated carbon footprint: Tonnes of CO2 per annum (tCO2/pa): Calendar year 2018



Public sector leadership

Our Environment Position Statement sets an ambition for leading the public sector in reducing staff travel emissions and vehicle emissions. We must put our own house in order if we want to lead by example.

OUR OPPORTUNITIES AND APPROACH

Our opportunities

Our corporate sustainability challenge offers an opportunity for public sector sustainability leadership.

We have a great opportunity to put our house in order and align our corporate behaviours with our sustainability principles and expectations. As the largest transport planner and investor in Aotearoa, this is the time to find smart ways of meeting our business needs and improving our effectiveness, while tracking towards carbon reductions, learning from and sharing our lessons learned with public sector colleagues.

Our approach

Realising our vision for a low carbon, safe and healthy land transport system requires us to align our own corporate behaviours and practices with this vision. We must walk our talk and grow an internal culture of sustainable practice if we wish to model authentic leadership.

WHAT WE WILL DO

WORKSTREAM 4: LEAD BY EXAMPLE

Focus: Reducing our business travel emissions while growing our effectiveness; building a culture of sustainability into all we do and all we are; and providing public sector leadership.

Summary actions Headline actions to June 2021

Robustly measure and verify our carbon footprint and set reduction targets.

Reduce our corporate travel emissions, addressing technology barriers and opportunities for working more effectively.

Additional actions to be prioritised and sequenced for the next three years

- Improve the sustainability performance of the products and services we use
- Improve our energy efficiency and waste minimisation
- Step up to public sector sustainability leadership for reducing business travel emissions
- Support sustainable commuting choices for our people.

CROSS-CUTTING WORKSTREAMS

Two cross-cutting workstreams are critical enablers of our vision and actions:

- Workstream 5: Invest for sustainable outcomes
- Workstream 6: Foundations for enduring success.

OUR OPPORTUNITIES AND APPROACH

WORKSTREAM 5: INVEST FOR SUSTAINABLE OUTCOMES

Recalibrating the Transport Agency's investment settings for long term sustainability.

We manage over $4 billion of land transport funding and co-investment each year on behalf of Government. Government sets our investment framework and priorities; we determine how priorities are achieved and what is or is not funded via our investment assessment and prioritisation settings. Our investment settings are a powerful mechanism for shaping activities and behaviours to support sustainable outcomes.

This workstream focuses on enabling investment settings for long term, balanced and multiple outcomes that seek 'win-win' solutions ahead of trade-offs.

Long term outcomes

Investment for long term outcomes is vulnerable to near term priorities. There are currently no tests for assessing the impact of land transport investment decisions on long term outcomes such as emission reductions. In the absence of such tests, investment risks addressing near term challenges, while undermining long term goals.

Balanced outcomes

Investing for sustainable outcomes is about balanced social, environmental and economic outcomes over time. How impacts are assessed is important. Some environmental impacts are not currently monetized or supported by good measurement tools, and so despite best efforts, they are not fully considered. When impacts are assessed is also critical. Currently, environmental impacts are largely considered at a project level. This can miss opportunities to inform earlier strategic decisions and consideration of alternatives that avoid adverse impacts or reduce the need for mitigation.

Designing for and driving multiple outcomes: Win-Wins

As the government's investment manager of the National Land Transport Fund, we have an obligation to ensure investment decisions deliver on government expectations for the land transport system, and for Aotearoa. Every dollar of investment must work hard and deliver on the outcomes sought by government.

Traditionally, investment proposals have focused on delivering a primary outcome. They may identify a range of secondary co-benefits that could accompany the proposal, but which are not deliberately targeted for achievement or designed into it. We are reviewing our Investment Decision-Making Framework. Our new investment principles encourage and support a more deliberate approach to designing and investing for multiple outcomes to ensure every dollar invested works harder and more effectively, supporting government expectations for transport, and wider government priorities.

The key to doing this well means calibrating smart sets of results or outcomes that can drive 'win-win' solutions designed to powerfully deliver multiple outcomes at the same time. For example, imagine a transport solution is required to significantly improve access to affordable housing, reduce congestion, improve road safety and reduce emissions *at the same time*.

- Increasing EV uptake addresses the emissions objective, but not the other objectives
- Building a new road can address access, congestion and safety objectives but fall short on emissions.

Deliberately designing for these multiple outcomes could lead to interventions that intensify affordable housing options in areas well served by public transport, walking and cycling; increase levels of service and safety for public transport and active modes; and use pricing and network management mechanisms to encourage people into more efficient, reliable and low carbon public transport or active modes. The approach looks for win-wins ahead of trade-offs, resolving conflicts between outcomes.

Including GHG emission reduction objectives in the primary outcome 'mix' for transport solutions could be a powerful catalyst for resolving near term challenges unrelated to climate change (such as congestion, air and noise pollution, urban sprawl and poor accessibility), while also tracking towards long term GHG emission reduction targets. This is because many of the interventions that reduce emissions can also deliver safety, health and access benefits, if designed that way.

WHAT WE WILL DO

As part of the Investment Decision-Making Framework Review, we will:

Summary actions Headline actions to June 2021

Enable investment for land transport GHG emission reductions through:

- Embedding long term emission reduction objectives and emissions-based thinking into planning, investment and accountability instruments (includes consideration of planning and investment bottom lines)
- Designing and implementing a methodology to support emission profiling and monitoring of national and regional land transport programmes; and significant infrastructure with an inter-generational life
- Working with central government partners to establish values for carbon aligned to international best practice.

Additional actions to be prioritised and sequenced for the next three years

- **Enable investment for long term outcomes**, through embedding sustainability principles into our decision-making approach; and establishing early strategic impact assessment for near and long term sustainability outcomes, to value avoidance of irreversible adverse climate, public health, cultural, heritage, natural and built environmental impacts.
- **Enable balanced assessment of outcomes** to support transparent consideration of monetised and non-monetised social and environmental outcomes, benefits and costs.
- **Embed the investment hierarchy into investment decision-making** to ensure a broad range of options and alternatives, including non-transport solutions are considered
- **Optimise** programmes and packages for delivery against multiple/priority outcomes specified in the strategic case.

OUR OPPORTUNITIES AND APPROACH

WORKSTREAM 6: FOUNDATIONS FOR ENDURING SUCCESS

Establishing the building blocks for success

The task of this workstream is to establish the building blocks to embed the focus, principles and actions of Toitū Te Taiao into the work of individuals and teams across Waka Kotahi, and allow us to become a land transport sector sustainability leader.

We're at the start of a significant journey of change

Delivery of Toitū Te Taiao requires accountability and engagement across every part of Waka Kotahi. It's a significant change programme. While we are already supporting sustainable outcomes, this plan puts our efforts on a new footing.

For individuals and organisations, successful change can be difficult, and for organisations aiming to lead successful sector-wide change for the long term – change can be even more difficult. Research has shown that most change projects do not fully deliver their expected returns and value.[23]

Successful projects and programmes share common best practice change management elements:

- Active and visible executive leadership
- A structured change management approach
- Dedicated change management resources
- Middle management engagement for delivery
- Employee engagement and participation
- Frequent and open communication
- Integration and engagement with project management.[24]

This workstream will put these elements in place to ensure the enduring success of our commitment to environmental sustainability and public health in the land transport sector.

WHAT WE WILL DO

Summary actions Headline actions to June 2021

Establish and support effective sustainability leadership

Establish and implement supporting frameworks, plans and policies:

- Review our Environmental and Social Responsibility Policy (inclusive of establishing significance and remediation policies to address RMA considerations of avoidance, remediation and mitigation)
- Change management plan, inclusive of culture change and capability development
- Communications plan
- Sustainability Monitoring Framework, inclusive of sustainability reporting and developing our evidence base.

Integrate Toitū Te Taiao into our strategy, business plan, policies and accountability mechanisms

Additional actions to be prioritised and sequenced for the next three years

- Establish a strategic partnership framework
- Establish a research and innovation programme to address knowledge gaps and identify new opportunities

MONITORING PROGRESS

We will publish an annual Sustainability Monitoring Report to track the progress towards our long-term outcomes and our vision for a low carbon, safe and healthy land transport system.

The first Sustainability Monitoring Report will be published in 2020. It will establish a 2018 baseline for a range of measures.

APPENDIX 1

HEADLINE ACTIONS TO JUNE 2021

WORKSTREAM 1: SUSTAINABLE URBAN ACCESS

HEADLINE ACTIONS	SUB-ACTIONS	
1	Define and embed a strategic approach for Waka Kotahi on urban form and transport planning for sustainable development that reduces emissions, improves access and liveability.	
2 Size the land use/mode shift contribution to net zero land transport emissions 2050	2a	Support lead government agencies and the Climate Change Commission to understand the land use (Avoid/Reduce) and mode shift (Shift) contribution to achieving net zero land transport emissions, relative to vehicle fleet transformation (Improve).
	2b	Baseline the current and planned transport emissions profile of major urban areas targeted by *Keeping Cities Moving*.
	2c	Identify the gap between baseline emissions and the scale of emission reductions required to deliver the land use/mode shift contribution to net zero carbon emissions 2050.

WORKSTREAM 2: SAFE, CLEAN AND EFFICIENT VEHICLES

HEADLINE ACTIONS	SUB-ACTIONS	
1	Gear up and administer the Government's proposed Clean Car Discount and Clean Car Standard when approved.	
2	Support the feasibility study and pilot (if necessary) for social leasing to help low income households into safe and clean vehicles.	
3 Size the land use/mode shift contribution to net zero land transport emissions 2050	3a	Identify partners and customer needs; leverage existing touch points; coordinate a new level of service for light vehicle public charging infrastructure to support accelerated uptake of EVs.
	3b	Maintain oversight of the effectiveness of interoperability standards for light charging infrastructure; and maintain a watching brief on public charging infrastructure needs of other light modes (eg e-bikes, e-motorcycles).
	3c	Work with the electricity industry to identify additional land owned by Waka Kotahi that may be suitable for public charging infrastructure.
	3d	Continue to use our EVRoam data and analytics to support sector and customer decision-making.
	3e	Improve signage and other information to help EV users easily locate and use charging infrastructure.

WORKSTREAM 3: PROTECT AND ENHANCE THE NATURAL AND BUILT ENVIRONMENT

HEADLINE ACTIONS	SUB-ACTIONS	
1 Review and update our Environmental and Social Responsibility Standard: Applicable to all infrastructure projects and activities for the whole lifecycle (ie including maintenance and operation)	1a	Review and update the ESR Standard to ensure tools, guidance and requirements give effect to Environmental and Social Responsibility Policy (Foundations workstream), enabling consistent management and monitoring of environmental performance (especially biodiversity and water quality); social, cultural and heritage outcomes; and public health outcomes (related to air and noise emissions). Ensure application to all relevant infrastructure (eg rail, public transport and active mode infrastructure as well as roads, bridges etc).
	1b	Establish desired levels of service and KPIs for the broad range of environmental, social, cultural and heritage assets managed by the asset data management system; and social and environmental levels of service for infrastructure assets.
	1c	Clarify the application of the ESR Standard for different types of programmes and projects across the decision-making and infrastructure life-cycle.
	1d	Align the ESR Standard to other key levers, tools and policies (eg business case approach, Te Ara Kotahi; good practice guides.
2 Leverage procurement for a step-change in sector environmental and social responsibility practice	2a	Review and implement procurement processes and collateral, to reflect environmental and social responsibility policy.
	2b	Review and implement standard contract specifications and performance measures to ensure they give effect to environmental and social responsibility policy: Prioritise Network Management Contracts coming up for renewal; and contracts under the Infrastructure Upgrade programme
	2c	Include environmental and social responsibility policy within future procurement improvement, engagement and capability development activities (including those involving industry and Councils).
	2d	Review and implement the policy guiding use of sustainability rating tools to provide for a broader application and use of such tools.
3 Develop and embed a resource efficiency and waste minimisation policy	3a	Develop and implement a resource efficiency and waste minimisation strategy and supporting policy, measures and targets.
	3b	Identify quick wins and form a prioritised set of actions to support Waka Kotahi, Regional Councils and our contractors to embed resource efficiency and waste management practices into core practice.
	3c	Facilitate a national conversation on resource efficiency for the wider infrastructure sector (eg addressing sustainability of aggregate supply).
	3d	Incentivise and champion innovation.

WORKSTREAM 4: LEAD BY EXAMPLE

HEADLINE ACTIONS	SUB-ACTIONS	
1 Robustly measure and verify our carbon footprint and set reduction targets	1a	Establish processes for the collection and reporting of all corporate carbon data.
	1b	Set corporate emission reduction targets (aligned to the science-based target methodology which reflects the Paris Agreement and/or NZ carbon emissions budgets).
	1c	Obtain independent verification of our corporate carbon footprint to standards set by Enviromark Solutions.
	1d	Investigate off-setting options and costs for residual corporate emissions to achieve carbon neutrality.
2 Leverage procurement for a step-change in sector environmental and social responsibility practice	2a	Significantly reduce corporate travel emissions.
	2b	Establish and audit guidelines for sustainable corporate travel.
	2c	Identify and address technology barriers and opportunities for working more effectively.
	2d	Sequence the transition of the vehicle fleet to achieve as near as practical 100% EV by TBC.
	2e	Increase utilisation of the EV fleet by staff.

WORKSTREAM 5: INVEST FOR SUSTAINABLE OUTCOMES

HEADLINE ACTIONS	SUB-ACTIONS	
1 Enable investment for land transport GHG emission reductions	1a	Embed long term emission reductions objectives and emissions-based thinking into planning, investment and accountability instruments, including national and regional land transport programmes.
	1b	Design and implement a methodology to support GHG emission profiling and monitoring of national and regional land transport programmes; and significant infrastructure with an intergenerational life.
	1c	Work with central government partners to establish values for carbon aligned to international best practice to support assessment of carbon impacts.

WORKSTREAM 6: FOUNDATIONS FOR ENDURING SUCCESS

HEADLINE ACTIONS	SUB-ACTIONS
1 Establish effective sustainability leadership	1a Establish and support a governance group to champion Toitū Te Taiao internally and externally, provide executive leadership, and maintain the commitment and momentum required to deliver the workstreams across Waka Kotahi
	1b Establish a community of interest to support the governance group, lead the execution of Toitū Te Taiao into and across Waka Kotahi and contribute to the ongoing development of our sustainability maturity.
	1c Establish a review and refresh cycle for Toitū Te Taiao.
2 Establish and implement supporting frameworks, plans and policies	2a Review and implement a refreshed Environment and Social Responsibility Policy, inclusive of establishing significance and remediation policies to address RMA considerations of avoidance, remediation and mitigation.
	2b Establish sustainability monitoring and reporting: • Agree and implement a regular measurement and monitoring process • Align key performance measures with: – The Transport Outcomes Framework – The Government Policy Statement on land transport – Investment performance measures – Transport Agency and Group objectives • Develop a comprehensive evidence base to underpin our sustainability work and development; and identify and resolve data gaps • Transition monitoring and reporting on Toitū Te Taiao into the Transport Agency's regular reporting process. • Publish the first annual sustainability report in 2020, setting a baseline to measure future performance against.
	2c Establish and implement a Communications and Engagement Plan for Toitū Te Taiao to: • Embed Toitū Te Taiao into Waka Kotahi and support the culture change required to make sustainability part of our DNA • Implement regular checks on communication effectiveness and update the plan accordingly.
	2d Establish and implement a change management plan, inclusive of culture change and capability development: • Change management • Culture change • Capability
3 Integrate Toitū Te Taiao into our strategy, business plan, policies and accountability mechanisms	

APPENDIX 2

TE WHAKAKITENGA - OUR VISION 2050: A LOW CARBON, SAFE AND HEALTHY LAND TRANSPORT SYSTEM

MĀTĀPONO: OUR PRINCIPLES

KAITIAKITANGA[2]
We recognise the environment is a taonga that must be managed carefully. We also recognise that Māori have a responsibility and obligation of care over their communities and environments.

RECOGNITION OF CULTURAL VALUES
We recognise and provide for Māori perspectives, tikanga (customs) Te Reo Māori and kawa (protocols) in the work we do.

STEWARDSHIP
We take a long-term view to ensure a sustainable transport future and conservation of resources.

PRECAUTIONARY
When an activity raises threats of harm to human health or the environment, we take precautionary measures.

EQUITY
We consider broad equity impacts of land transport interventions, including intergenerational impacts.

REMEDIATION
We put right elevated harm arising from the land transport system.

COMPREHENSIVE
We consider social, cultural, environmental and economic costs and benefits, including those that are indirect, long-term and not monetized.

OUR CHALLENGES	LONG TERM OUTCOMES TO 2050	GPS OUTCOME MEASURES	TRANSPORT AGENCY HEADLINE MEDIUM TERM OBJECTIVES 3-10 YRS	TARGETS	WORKSTREAMS	CROSS CUTTING WORKSTREAMS	TRANSPORT AGENCY HEADLINE ACTIONS TO JUNE 2021 FOR ADDITIONAL ACTIONS REFER TO TOITŪ TE TAIAO
REDUCING LAND TRANSPORT GREENHOUSE GAS EMISSIONS Although by global standards, New Zealand is a small emitter, our per person emissions are amongst the highest in the OECD. Transport accounts for approximately 20% of New Zealand's greenhouse gas emissions, 90% of which arise from road transport. The light vehicle fleet accounts for 75% of road transport GHG emissions and is the fastest growing source of GHG emissions. These emissions must be significantly reduced if Aotearoa is to achieve net zero emissions by 2050.	**Reducing greenhouse gas emissions:** Net zero land transport GHG emissions 2050	**Tonnes of greenhouse gases emitted per year from land transport by vehicle and by region**	• Long term emission reduction objectives are embedded in planning and investment instruments • Urban access in major urban areas is transitioning to low emission, shared and active modes • Intra and inter-regional freight movement is safer and more efficient • Physical activity as a component of travel choice is increasing • Exposure to harmful air pollution is reducing in targeted areas • The carbon intensity of the vehicle fleet is reducing • Individuals and fleet owners find it easy to purchase and use electric vehicles	To be developed following baselines to be identified in the Sustainability Monitoring Framework (first report due June 2020)	**1** Sustainable urban access **2** Safe, clean and efficient vehicles	**5** Invest for Sustainable Outcomes + **6** Foundations for enduring success (Leadership; Frameworks and policies; Integration into strategy, business planning and policies)	INVEST FOR SUSTAINABLE OUTCOMES • Embed long term emissions reduction objectives and emissions-based thinking into planning, investment and accountability instruments • Design and implement a methodology to support GHG emission profiling and monitoring or national and regional land transport programmes; and significant infrastructure with an intergenerational life • Work with central government partners to establish carbon values aligned to international best practice. SUSTAINABLE URBAN ACCESS • Define and embed a strategic approach for Waka Kotahi on urban form and transport planning • Size the land use/mode shift contribution to net zero land transport emissions 2050, relative to changes in the vehicle fleet. SAFE, CLEAN AND EFFICIENT VEHICLES • Gear up and administer the Government's proposed Clean Car Discount and Clean Car Standard when approved • Support the feasibility study for social leasing to help low income households into safe and clean vehicles • Partner to provide individuals and fleet owners with the knowledge and confidence to purchase and use electric vehicles
IMPROVING PUBLIC HEALTH Air emissions play a role in shortening the lives of over 250 people a year. Approximately 38,000 people are exposed to high levels of noise from state highways and major local roads in Aotearoa – many more are exposed if we use European standards. In terms of physical activity levels, in 2016/17 only 50.2% of adults in Aotearoa (15 years and over) were physically active (at least 30 mins on 5 days per week) and 13.4 percent of adults did less than 30 minutes per week. Our active mode share is low by international standards. And our land transport system is not as safe as it could be: In 2019, over 350 people died and over 2500 were seriously injured on our roads, which comes at a social cost of more than $4.6B per annum.	**Active modes:** The land transport system supports physically active and healthy travel options **Air quality:** No harm from land transport air emissions **Noise**: No harm from land transport noise	**Total number of journeys by mode [active modes] and Road Controlling Authority** **Exposure to elevated concentrations of air pollution from the transport system** **Number of people exposed to elevated levels of land transport noise**					
REDUCING ENVIRONMENTAL HARM The land transport system is a substantial presence in our natural environment, traversing many sensitive habitats and waterways. Just as significant as the 'footprint' of the land transport system, is the kind of urban land use and development it enables. Productive land and loss of native land cover, habitats and biodiversity are casualties of urban sprawl. The land transport system and the kind of development it supports has a variety of impacts on biodiversity from destruction and severance of habitat to enhancing transport corridor ecological and cultural values. Storm-water run-off from roads contains a variety of toxic elements that can adversely affect the ecological health of water bodies. Construction and demolition waste represent about 50% of all waste going to landfill. Land transport construction and demolition waste is not routinely recycled and the use of recycled or alternative materials in new builds is limited.	**Biodiversity:** The land transport network is managed to support and enhance indigenous biodiversity **Water:** Water bodies are protected from adverse effects of land transport storm-water run-off **Resource efficiency:** We use resources and energy sustainably	**TBD: Not covered by the GPS** **Tonnes of selected contaminants discharged from the land transport network into sensitive water bodies** **TBD: Not covered in the GPS**	• Known harm is programmed for remediation • Infrastructure activities are assessed, designed, delivered and managed to protect and enhance the natural and built environment • Procurement processes, KPIs, specifications and policy improve sector sustainability practice and outcomes • Waste from construction, maintenance and demolition is reducing • Use of sustainable materials is increasing		**3** Protect and enhance the natural and built environment		PROTECT AND ENHANCE THE NATURAL AND BUILT ENVIRONMENT • Review and update our Environmental and Social Responsibility Standard: Applicable to all infrastructure projects and activities across the whole lifecycle • Leverage procurement for a step-change in sector environmental and social responsibility practice • Develop and embed a resource efficiency and waste minimisation policy FOUNDATIONS FOR ENDURING SUCCESS • Review and implement a refreshed Environmental and Social Responsibility Policy
REDUCING CORPORATE EMISSIONS In calendar year 2018 our total carbon emissions were 5.2 kilo tonnes, 94% of which arose from travel; and most of this arising from domestic air travel. Travel emissions have increased 80% since 2016 (calendar year); domestic air emissions have increased 94%. We must transition our vehicle fleet to 100% electric (as far as practicable) by 2026; and we aspire to public sector sustainability leadership.	**Reducing corporate emissions:** Waka Kotahi is carbon neutral	**Waka Kotahi carbon footprint**	• Our business travel emissions are significantly reduced		**4** Lead by example		LEAD BY EXAMPLE • Robustly measure and verify our carbon footprint and set reduction targets • Reduce our corporate travel emissions

END NOTES

[1] Arataki is our 10-year view of what is needed to deliver on the government's current priorities and long-term objectives for the land transport system. It's our way of being more transparent about what we see coming nationally and regionally, and about how we want to work with you to shape the best land transport system for New Zealand. **https://www.nzta.govt.nz/planning-and-investment/planning/arataki/**

[2] Our first two principles are shared with Te Ara Kotahi – Our Māori Strategy

[3] Environment Aotearoa 2019: New Zealand's Environmental Reporting Series, Ministry for the Environment and Statistics NZ, p. 92.

[4] Annual Fleet Statistics 2018, Ministry of Transport, p. 15; NZTA Vehicle Emissions Mapping Tool; Moving the light vehicle fleet to low-emissions: Discussion paper on a Clean Car Standard and Clean Car Discount, Ministry of Transport, (9 July 2019), pp.6-7

[5] The Climate Change Response (Zero Carbon) Amendment Act sets a net zero carbon emissions target for all greenhouse gas emissions (except biological methane) by 2050.

[6] According to the Ministry of Transport's Annual Fleet Statistics 2018, there were nearly 4.3 million vehicles in the fleet by 2018; and as of 4 December 2019 and according to the Ministry of Transport monthly vehicle registraiton data (**https://www.transport.govt.nz/mot-resources/vehicle-fleet-statistics/monthly-electric-and-hybrid-light-vehicle-registrations/**), there were !8,000 electric/hybrid vehicles in the fleet, constituting about 0.4%. Replacing nearly 4.3 million fossil fuel vehicles with no/low emission vehicles by 2030 constitutes a replacement rate of over 142,000 vehicles a year.

[7] Ministry of Transport: Monthly Electric and Hybrid Vehicle Registrations: **https://www.transport.govt.nz/mot-resources/vehicle-fleet-statistics/monthly-electric-and-hybrid-light-vehicle-registrations/**

[8] Transport Outlook: Future State, Ministry of Transport (2017), p.74

[9] Road Safety Outcomes: Supplement to the NZ Transport Agency's Quarterly Results and Insights Q2 2019/20, **https://www.nzta.govt.nz/assets/resources/road-safety-outcomes/docs/rso-oct-dec-2019.pdf**

[10] Updated Health and Air Pollution in New Zealand Study, Volume 1: Summary Report (March 2012), Table 6.3, p.31; Environment Aotearoa 2019, pp. 68-70

[11] 'National Land Transport (Road) Noise Map', 2019 Project Report (AECOM) (unpublished)

[12] Turning the Tide – From Cars to Active Transport, University of Otago (April 2019), p. 10

[13] Turning the Tide, p. 10

[14] Sustainable Urban Transport: Avoid-Shift-Improve (ASI), Sustainable Urban Transport Project

[15] The Cross-Government Low Emission Vehicles Work Programme is a whole of government effort to accelerate the transition to a low carbon vehicle fleet. It has four areas of focus and primarily addresses the light vehicle fleet.

[16] Modelling by the Ministry of Transport shows that the scale of projected EV uptake is uncertain; and current projections of land transport emissions are not consistent with achieving the 2030 Paris Agreement target (30% below emissions at 2005) or achieving net zero land transport emissions by 2050. (Moving the light vehicle fleet to low-emissions: Discussion paper on a Clean Car Standard and Clean Car Discount, Ministry of Transport, (9 July 2019) **https://www.transport.govt.nz/multi-modal/climatechange/electric-vehicles/clean-cars/**

[17] Keeping Cities Moving is a our plan for supporting and enabling greater mode shift from cars to public transport and/or active modes in our fastest growing cities – Auckland, Hamilton, Tauranga, Wellington, Christchurch and Queenstown. It aims to deliver on social, environmental and economic outcomes by growing the share of travel by public transport, walking and cycling. **https://www.nzta.govt.nz/walking-cycling-and-public-transport/keeping-cities-moving/**

[18] Environment Aotearoa 2019, p. 7; p. 17.

[19] **https://www.nzta.govt.nz/roads-and-rail/research-and-data/state-highway-frequently-asked-questions/#useful-facts**

[20] BRANZ: Reducing Building Material Wastes: Construction Guide 2014: **https://www.branz.co.nz/cms_show_download.php?id=5e8633f5234594b316612f186e49687aff5475dd**

[21] While government agencies are required to disclose their average vehicle fleet emission profile of their vehicle fleets, there are no requirements for government agencies to measure or disclose their complete emission profile. The Energy Efficiency and Conservation Authority (EECA) the Environmental Protection Agency (EPA) and the Ministry for the Environment however do. Based on 2018 data from these agencies, we have identified that our overall emissions are high, and our per FTE emissions is also high when compared to these agencies. Comparisons must be treated with some caution since Waka Kotahi is a different and much larger agency than these other agencies.

[22] **https://www.procurement.govt.nz/broader-outcomes/reducing-emissions-and-waste/reducing-government-fleet-emissions/**

[23] Helping Employees Embrace Change, McKinsey Quarterly 2002 Number 4, Jennifer A. La Clair and Ravi P. Rao

[24] **https://www.prosci.com/resources/articles/change-management-best-practices**

If you have further queries, call our contact centre on 0800 699 000 or write to us:

NZ Transport Agency
Private Bag 6995
Wellington 6141

This publication is also available on NZ Transport Agency's website at **www.nzta.govt.nz**

WAKA KOTAHI
NZ TRANSPORT AGENCY

New Zealand Government

April 2020