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Hīkina te Wero: Environment Action Plan

For decision: For noting:

Te tūtohunga / Recommendation

- a) That the Auckland Transport Board (board) endorses the Auckland Transport Hīkina te Wero: Environment Action Plan subject to a review within three years.

Te whakarāpopototanga matua / Executive summary

1. This paper presents the Auckland Transport (AT) Hīkina te Wero: Environmental Action Plan (EAP) 2020-2030 for endorsement.
2. Mana whenua gifted the name Hīkina te Wero (take up the challenge) to the EAP in recognition of the co-design approach undertaken.
3. The EAP is a step forward for AT towards leadership of environmental best practice in the transport sector, by establishing for the first time, a set of achievable targets for five priority environmental outcomes, and guides actions to deliver improvements to Auckland's stormwater quality, green infrastructure and biodiversity while minimising water use and waste.
4. The EAP enables AT to meet its obligations in regard to Government environmental reporting standards, by providing a structured and transparent pathway for measuring and reporting progress towards the five environmental outcomes.
5. The EAP is one of the elements of AT's Sustainability Strategy and wider Operating Model. An overview of the programmes contained in the strategy, was presented to the Finance and Assurance Committee at its 30 July 2021 workshop. Work is currently underway to develop the governance component of AT's wider Sustainability Operating Model, which will be presented to the board in February 2022.
6. The EAP will primarily be delivered through existing capital, renewals, or maintenance programmes. The expected cost (capex and opex) of implementing the EAP will be covered from within existing budgets.
7. An EAP launch strategy will be developed with the communications team under the umbrella of the AT's Sustainability Strategy. This will raise awareness of the EAP and the associated environment targets in conjunction with AT's wider sustainability targets.
8. The EAP will be reviewed in three years to consider level of ambition and funding gaps.

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Ngā tuhinga ō mua / Previous deliberations

Date	Report Title	Key Outcomes
30 July 2021 Finance and Assurance Committee	Sustainability Strategy	The Committee noted that management would develop a Sustainability Operating Model.
29 October 2021 Finance and Assurance Committee	Hīkina te Wero: Environment Action Plan	The Committee recommended the EAP to the board for endorsement subject to a review in three years.

Te horopaki me te tīaroaro rautaki / Context and strategic alignment

Context

9. The AT Sustainability Strategy includes four core programmes of environment, climate change mitigation, climate change adaptation, and social procurement, with supporting programmes of policy advocacy and communications & reporting.

Development

10. AT has developed the EAP in response to recent changes in strategic plans, policies and legislation at both national and local government level which require AT to measure and report on the impact of our transport network on the environment. These include:
- Waka Kotahi New Zealand Transport Agency (Waka Kotahi) requires all projects >\$15 m in value to consider and report on sustainability outcomes (Environmental and Social Responsibility Standard (2021)).
 - Auckland Council Unitary Plan (2016) and Network Discharge Consent (2019) conditions both set objectives and requirements for managing road runoff.
 - The National Policy Statement and National Environmental Standard: Freshwater Management (2020) – mandates reporting requirements related to freshwater management.
11. The EAP establishes a framework for AT's long-term approach to protect and restore the environment, with a focus on transport system water quality and conservation, waste minimisation and reuse, biodiversity and 'greening' the transport network¹. It is the first time that the threads of AT's environmental work have been woven together into a single document.

¹ Air quality is addressed through the Emissions Reduction Plan as it relates directly to fuel use and vehicle kilometres travelled.

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12. The outcomes, targets and actions have been developed with assistance from AT staff (Sustainability, Procurement, Design Standards and Delivery teams), Auckland Council and the wider Council family and Waka Kotahi. Mana whenua have also played a key role in guiding the korero and direction of the EAP. Measures have also been established to track progress toward the targets.
13. The EAP takes an integrated approach to protecting and restoring the environment, utilising shared work programmes and resources with Council, making use of AT's sustainable procurement tools, complementing and contributing to ATs climate change emissions mitigation and adaptation planting programmes.

Purpose

14. The EAP establishes targets for five priority environmental outcomes and provides deliberate actions to deliver improvements to Auckland's stormwater quality, green infrastructure and biodiversity while minimising water use and waste.
15. The EAP is complimentary to the AT transport emissions mitigation programme, providing a structured and transparent pathway for measuring and reporting the environmental improvements as a result of emissions mitigation interventions.
16. The EAP enables AT to meet it meets its obligations in regard to Government environmental reporting standards, lead environmental best practice in New Zealand, and deliver measurable outcomes in terms of environmental improvements for our customers and communities.

Targets

17. The draft EAP 2020-2030 establishes five specific environmental targets for AT, requiring endorsement by the board.
 - a. Managing our Discharges: Runoff from 30% of our busiest roads will be treated by 2030 (as per the Regional Land Transport Plan 2021-2031 (RLTP)).
 - b. Greening our Network: Increase canopy cover to 12% in the road corridor by Local Board area and increase pervious surface along key ecological corridors by 10% by 2030.
 - c. Fish Passage and Biodiversity: 20% of rural culverts on permanent streams will provide for fish passage by 2030.
 - d. Water Conservation: Projects >\$5m will establish a non-potable water supply and AT will reduce potable water use by 5% per annum.
 - e. Waste Minimisation: AT will reduce waste sent to landfill by 50% by 2030
18. Performance and progress against the targets will be reported to the board.

Ngā matapakinga me ngā tātaritanga / Discussion and analysis

19. The EAP is a step forward for AT towards leadership of environmental best practice in the transport sector, by establishing for the first time, a set of ambitious and achievable targets for five priority environmental outcomes. The EAP also guides actions to deliver improvements to

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Auckland's natural environment over the next ten years. An outline of the environmental outcomes, targets and programme's projects is provided in Appendix 1.

20. The priority outcomes in the EAP were selected to align with the current national and local government plans, policies and reporting requirements. Baseline data was measured and recorded over the past 12 months using historic and existing projects, to ensure the targets were both ambitious and yet achievable.
21. The target values were formed through a consultative process and this has established a collaborative way of working from the start and has created a wide level of awareness and a broad base of support for the targets within AT, Waka Kotahi and Council.
22. The EAP takes an integrated approach to protecting and restoring the environment:
 - a. Delivery of the actions will utilise shared work programmes and resources with Council, particularly for stormwater, fish passage and street trees;
 - b. Make use of AT's Sustainable Procurement Action Plan and tools to embed environmental requirements and reporting into new contracts; and
 - c. Complementing and contributing to ATs climate change emissions mitigation and adaptation planning programmes by measuring and recording improvements.
23. The EAP will primarily be delivered through existing capital, renewals, or maintenance programmes. The expected cost (capex and opex) of implementing the EAP will be covered from within existing budgets.
24. AT is assessing funding gaps for Managing Our Discharges (stormwater treatment) and Greening Our Network (green infrastructure) to identify projects/programmes where insufficient or no funding may have been allocated. A business case and work programme will be developed to support a funding request in the future should gaps be identified. For example, water quality improvements for stormwater from roads existing in 2016 is not required under the Auckland Unitary Plan unless the road is "improved". If no improvement project is planned, then the runoff will continue to discharge to the harbour untreated. The cost of retrofitting treatment to these roads is likely to be a funding gap in the current RLTP.
25. The EAP targets will be integrated into ATs wider planning and performance framework through the AT Business Plan, Sustainability Strategy and Operating Model. The actions will be delivered through physical works contracts using the Sustainable Procurement Action Plan. The environmental target data will be collated through these contracts and shared with the AT Sustainability and Asset Management teams to support both environment and emissions reporting.
26. In due course, an EAP launch strategy will be developed with the communications team under the umbrella of the AT's Sustainability Strategy and wider Operating Model. This will raise awareness of the EAP and the associated environment targets in conjunction with AT's wider sustainability targets. This will be an opportunity to showcase positive progress towards restoring and protecting the environment and will be an opportunity to establish AT's leadership in this area.
27. The EAP will be reviewed in three years to reflect progress, consider the implied level of ambition and funding gaps.

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Ngā tūraru matua / Key risks and mitigations

Key risk	Mitigation
Environment targets are not met due to a lack of prioritisation and funding. This affects our ability to manage our environmental effects, take a leadership role and impacts our reputation with our stakeholders and with our communities.	Build the targets set out in the EAP into AT's wider planning and performance reporting systems and processes, and project assessment and cost estimation processes to ensure visibility and funding allocation where appropriate.

Ngā ritenga-ā-pūtea me ngā rauemi / Financial and resource impacts

28. The resources required to deliver the environmental outcomes are typically included within existing RLTP capital project, renewals, or maintenance budgets. Funding gaps for Managing Our Discharges (stormwater treatment) and Greening Our Network (green infrastructure) are being assessed to identify projects/programmes where insufficient or no funding may have been allocated.

Ngā whaiwhakaaro ō te taiao me te panonitanga o te āhuarangi / Environment and climate change considerations

29. The EAP seeks to protect and restore Auckland's environment and compliment AT's climate change programme.

Ngā whakaaweawe me ngā whakaaro / Impacts and perspectives

Mana whenua

30. Mana whenua have been involved with and contributed to, the development of the EAP over an 18-month period. Recent hui (three in September 2021) confirmed their support for the EAP and desire for transparent reporting of progress.

Ngā mema pōti / Elected members

31. The formative work of the EAP was presented to Environment and Climate Change Committee in February 2021. The Committee was supportive of the approach and requested an update once it was finalised.

Ngā rōpū kei raro i te Kaunihera / Council Controlled Organisations

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32. Formal engagement with Council Controlled Organisations has not yet been undertaken. Auckland Council officers were consulted during the development of the targets in the EAP.

Ngā kiritaki / Customers

33. The EAP provides a pathway for delivering on one of the AT key sustainability objectives to 'Restore and Protect our Environment'. Transparent reporting will provide our customers with confidence that AT is improving environmental health.

Ngā whaiwhakaaro haumaruru me ngā whaiwhakaaro hauora / Health, safety and wellbeing considerations

34. The EAP will improve health, and wellbeing of Aucklanders by improving the natural environment and addressing the impacts of climate change.

Ā muri ake nei / Next steps




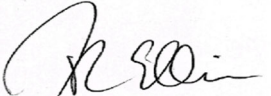
35. Assuming board endorsement, the EAP will be published and reporting/governance established within the sustainability operating model. The launch strategy to be developed with the Communications team will link the EAP to the AT key sustainability objectives to 'Restore and Protect our Environment', provide external communications opportunities to showcase ATs leadership and increase AT staff knowledge and capability.

Ngā whakapiringa / Attachments

Attachment number	Description
1	Overview of Targets and Projects for next 12 months
2	Hīkina te Wero: Environment Action Plan

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Te pou whenua tuhinga / Document ownership

Submitted by	Dr Cathy Bebelman Environment Specialist	
Reviewed by	Murray Burt Chief Engineer	
Recommended by	Mark Lambert EGM Integrated Networks	
	Jenny Chetwynd EGM Planning and Investment	
Approved for submission	Shane Ellison Chief Executive	

Attachment 1: Overview of Environment Action Plan targets and projects for next 12 months.

Managing Our Discharges	Water Conservation	Fish Passage and Biodiversity	Waste Minimisation	Greening Our Network
<ul style="list-style-type: none"> Improving harbour and stream water quality Target: Runoff from 30% of busiest roads will be treated by 2030 KPI: Treatment devices installed 	<ul style="list-style-type: none"> Reducing waste of potable water Target: Projects >\$5M have non-potable water supply and AT will reduce potable water use by 5% pa KPI: Volume of water used tracked through contracts/Watercare 	<ul style="list-style-type: none"> Protecting biodiversity in streams Target: 20% of rural culverts on permanent streams provide for fish passage by 2030 KPI: Culvert condition assessment programme 	<ul style="list-style-type: none"> Recycle/reuse materials, investigate alternative materials Target: reduce waste to landfill by 50% by 2030 KPI: volumes reported via contractual requirements 	<ul style="list-style-type: none"> Using the roads to connect our green spaces Target: increase canopy cover to average of 12% in road corridors by 2030 Target: increase pervious surfaces along key corridors by 10% by 2030 KPI: LIDAR surveys and green infrastructure assets
<p>AT/Healthy Waters Project Programme for Water Quality Treatment</p>	<p>Water Management Plans for facilities</p>	<p>Culvert condition assessment and renewals programme</p>	<p>Business Case for environmental work programme</p>	<p>Green Infrastructure Business Case and Work Programme</p>
<ul style="list-style-type: none"> Co-ordinate retrofit of treatment devices on busy roads with Healthy Waters <p>Key</p>	<ul style="list-style-type: none"> Development of water plans for facilities and AT contracts through procurement 	<ul style="list-style-type: none"> Coordinating waterways assessments with culvert condition 	<ul style="list-style-type: none"> Environmental specifications for materials used on network 	<ul style="list-style-type: none"> Green roofs/walls on transport facilities and align with Council Urban Ngahere Strategy
<ul style="list-style-type: none"> High priority Moderate priority: limited progress in the next 12 months Low priority: progress unlikely in the next 12 months 				

Hīkina te Wero

Environment Action Plan 2020-2030

**How Auckland Transport
is protecting and
restoring our natural
environment**

Let's go there



Whakataka te hau ki te uru	Cease o winds from the west
Whakataka te hau ki te tonga	Cease o winds from the south
Kia mākinakina ki uta	Bring calm breezes over the land
Kia mātaratara ki tai	Bring calm breezes over the sea
E hi ake and te atakura	And let the red-tipped dawn come
He tio	With a touch of frost
He huka	A sharpened air
He hau hu	And promise of a glorious day
Tihei mauri ora!	Behold we live!



Contents

- Message from the Chief Executive** 3
- Overview** 4
 - Purpose 4
 - Acknowledgements 4
 - The environment, sustainable development, and climate 5
 - Action Plans to realise the AT Sustainability Framework 7
- Our issues and challenges** 9
 - The role transport plays in cities 9
- Mana Whenua** 10
- Strategic alignment** 12
 - Our approach 14
 - Our vision 15
 - Our goals 15
- Our targets** 16
 - Managing our discharges 16
 - Greening our network 17
 - Water conservation 18
 - Fish passage and biodiversity 19
 - Minimising waste 20
- Implementation Plan** 22
 - Our actions 23
 - Managing our discharges 23
 - Greening our network 24
 - Water conservation 25
 - Fish passage and biodiversity 25
 - Minimising waste 26
- Reporting** 27
- Glossary** 28
- References** 29
- Appendix A - Strategic connections** 30

Message from the Chief Executive

The Hīkina te Wero sets out a bold pathway for improving Auckland's environment for the benefit of our people both now and in the future. From reducing the use of potable water to installing rain gardens, this plan provides a comprehensive pathway for minimising our impact and addressing the environmental challenges that Auckland faces.

We know that Auckland is experiencing unprecedented growth and across the region development is occurring at a rapid pace. While it's an exciting time of opportunity for Tāmaki Makaurau, growth also presents environmental challenges. From increased road runoff polluting our waterways, to minimising waste, it is essential that we plan for the environmental impacts of this growth.

Our mission is to deliver easy journeys through the development and management of transport infrastructure and services to connect people and communities. However, this must be done in a way that not only addresses our impact on the environment, but also protects and restores our city for future generations

Across our organisation we are considering how we deliver for Auckland while minimising our impact on the environment, leaving a sustainable legacy for the next generation. Providing our customers with a range of transport choices while adapting to a changing climate is a challenge. This plan forms part of our response to that challenge.

I'm proud of the innovative approaches our team has devised to managing environmental impacts in this document. An example of this is our approach to using our road network to provide and



Shane Ellison
AT CHIEF EXECUTIVE OFFICER

connect ecological corridors. Green corridors allow species to migrate through urban environments, enhancing biodiversity and the health of Aucklanders and our region. Green infrastructure is part of creating an ecological corridor through a strategically planned network of natural and semi-natural areas that includes the use of rain gardens, green roofs and walls, street trees, rain gardens and other vegetation. This multifaceted approach, engaging different stakeholders and using different levers to achieve our goal is evident throughout the plan.

I would like to thank Mana Whenua for their contribution to the development of this plan. Working in partnership together will be vital, ensuring that our mahi contributes to a sustainable place to live for our tamariki both now and in the future.

The publication of this plan represents a critical step in Auckland Transport's journey to becoming more sustainable, adaptable and resilient in the face of environmental and climate challenges and signals to the people of Tāmaki Makaurau our commitment to ensuring our region remains a great place to live for future generations.

Overview

Purpose

The purpose of this Plan is to establish a framework for Auckland Transport’s (AT) long-term approach to the environment. The plan will support the actions over the next ten years to give effect to those requirements and so protect and restore our natural environment.

This will be a ‘living’ plan that will be updated regularly to reflect the successful completion of the actions outlined here, to adapt to an evolving context, and to add new actions over time.

As reflected in the name Hīkina te Wero, Auckland Transport is called to take up the challenge.

Acknowledgements

Auckland Transport would like to acknowledge the significant contribution made by Mana whenua to the development of this plan. AT is deeply grateful for the time, commitment and korero offered by those who attended the many hui to guide the identification and development of the environmental outcomes. In particular AT acknowledges:

Iwi / Org

Ngāti Te Ata Waiohua
Te Akitai Waiohua
Ngāti Whanaunga
Ngāti Tamaoho
Te Patukirikiri
Te Ahiwaru
Ngāti Maru
Ngāi Tai ki Tāmaki
Te Uri o Hau
Ngāti Whātua o Ōrākei
Ngāti Whātua o Kaipara
Ngāti Manuhiri
Ngāti Paoa Trust

Representative

Edith Tuhimata and Paora Paru
Kathleen Wilson
Gavin Anderson
Lucille Rutherford and Zachary Sirett
Paulette Reidy
Kowhai Olsen
Geoff Cook
Zaelene Maxwell-Butler
Lisa Knight
Andrew Brown
Pani Gleeson
Peter Tuinder
Danella Roebeck



Developing Hīkina te Wero

Auckland Transport has developed Hīkina te Wero in response to recent changes in the policy and legislative environment (which include the National Policy Statement on Freshwater Management and Waka Kotahi's Environmental and Social Responsibility Standard), reporting requirements and an expectation that AT will demonstrate leadership in the environmental area.

Hīkina te Wero provides AT with a transparent approach to measuring and reporting on our progress towards protecting and restoring the environment. It is the first time that the threads of Auckland Transport's environmental work have been woven together into a single document.

The outcomes, targets and actions have been developed with assistance from Auckland Transport staff (Sustainability, Procurement, Design Standards and Delivery teams), Auckland Council and the wider Council family, and Waka Kotahi. Mana whenua have also played a key role in guiding the korero and direction of Hīkina te Wero.

AT intends for the targets and actions identified here to be integrated across the delivery and operation of our transport network. The outcomes and targets also connect with our emissions reduction and climate change adaptation planning and response.

Overview continued

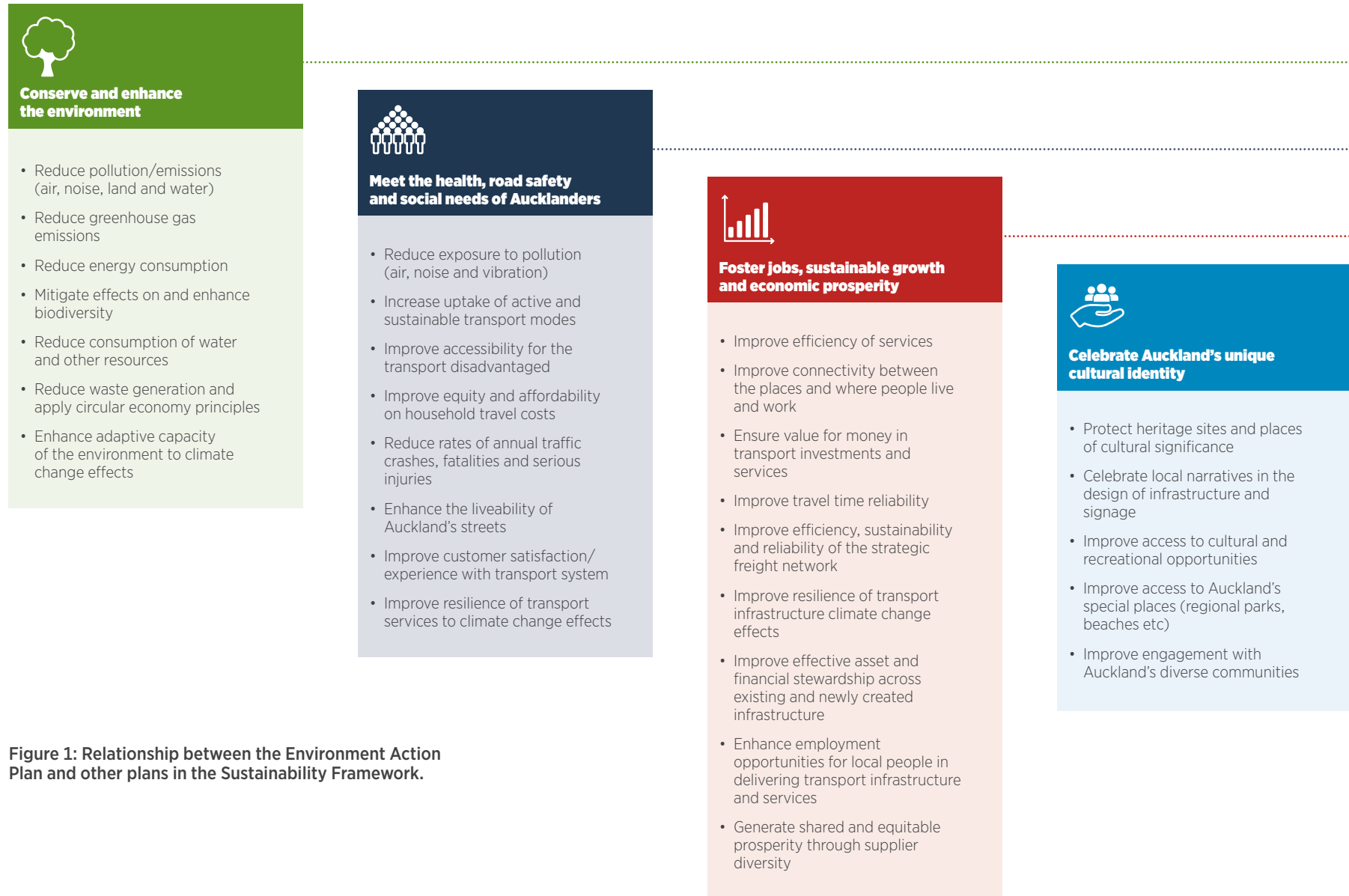
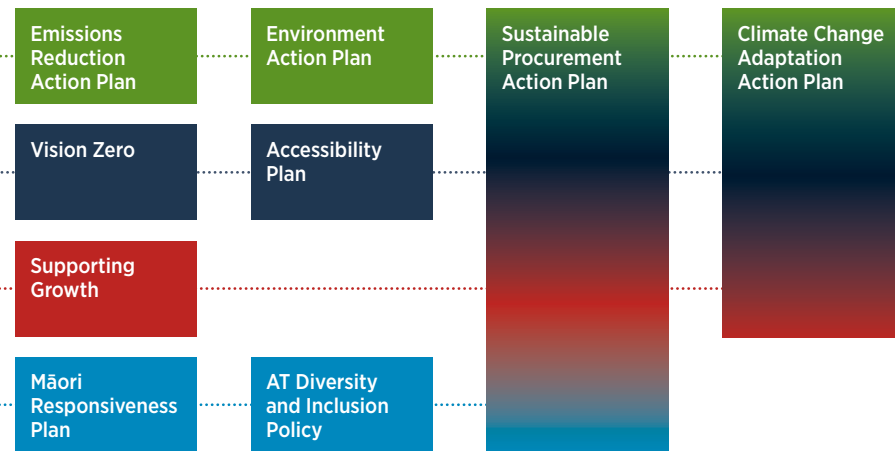


Figure 1: Relationship between the Environment Action Plan and other plans in the Sustainability Framework.

Overview continued



Action Plans to realise the AT Sustainability Framework

A series of plans and strategies will realise the outcomes of the (revised) AT Sustainability Framework. These plans are in specific domains and include goals and their accompanying work programmes. Plans and strategies currently under development:

1. Emissions Reduction Action Plan
2. Climate Adaptation Action Plan
3. Environment Action Plan
4. Sustainable Procurement Action Plan

New plans, consistent with the revised framework, will be included as priorities change. Deliberately excluded are existing plans that reflect “business as usual”, such as increasing the uptake of active modes and encouraging the switch to public transport.



Our issues and challenges

As Auckland grows, so does the impact on the environment that we live in. From more earthworks for housing, more vehicles on our roads, to climate changes – our environment is impacted by more people and more pollutants. While Auckland Transport’s mission is to deliver **easy journeys** through the development and management of transport infrastructure and services to **connect people and communities**, we must do so in a way that not only addresses our impact on the environment, but also protects and restores it for future generations. To achieve this, AT needs to do things differently.

This challenges the way we go about our business. What can we do to ensure we minimise our impact on the environment and leave a sustainable legacy for the next generation? How do we deliver transport choices while moving beyond resilience to also develop adaptive capacity and capability – our fitness – so that we can respond to climate and other changes?

The role transport plays in cities

Source: Auckland Transport Sustainability Framework (2017)

Transport is a fundamental component and shaper of cities. Transport networks enable people to access goods and services in a way that is efficient and effective. Most major cities around the world began as historical transport hubs, where settlements were established and then continued to develop around natural harbours, waterways or overland routes. Population growth, land use and transport are now intrinsically linked, with each influencing the other, directly or indirectly.

Transport activities, however, can have significant impacts on existing transport systems, surrounding land use and the environment, including impacts from the development of new transport services and infrastructure. The transport sector affects land, air, water quality, the economy, communities and ecosystems and consumes large quantities of non-renewable resources. It also has a significant impact on the role of Mana Whenua as kaitiaki (stewards) of the region.

Auckland’s harbour setting, natural environment, urban form and transport system are key shapers of Auckland’s liveability, and will face challenges with the region’s projected population growth and future development. Transport has contributed significantly to the development of Auckland in terms of movement and place and will be key to Auckland’s future ability to compete on the international stage – as a world-class place that attracts and retains employers, talent, commerce, industry and events.

Mana Whenua

Mana Whenua as kaitiaki (custodians) of the Tāmaki region, are responsible for protecting the regions natural and physical resources as well as its people according to tikanga. They are therefore the kaitiaki of the mana, mauri and taonga of land, water, air, and people of Tāmaki Makaurau. Mana whenua have a key role and contribution to make to the Auckland region’s sustainability.

The Mana whenua view of sustainability is anchored in a world view built on a holistic philosophy that recognises, values and treasures the interconnectedness of everything and everyone. Stories, traditions, philosophies and values passed down from generation to generation underpin this world view. These traditions have combined to shape the Mana whenua world view and their understandings and relationships with the natural world. They act to reinforce the various relationships between the land and people and will continue to do so for the present and future generations. The interconnected world view is expressed in Figure 2.

Through our partnership with Mana Whenua Auckland Transport is committed to protecting and restoring the environment.

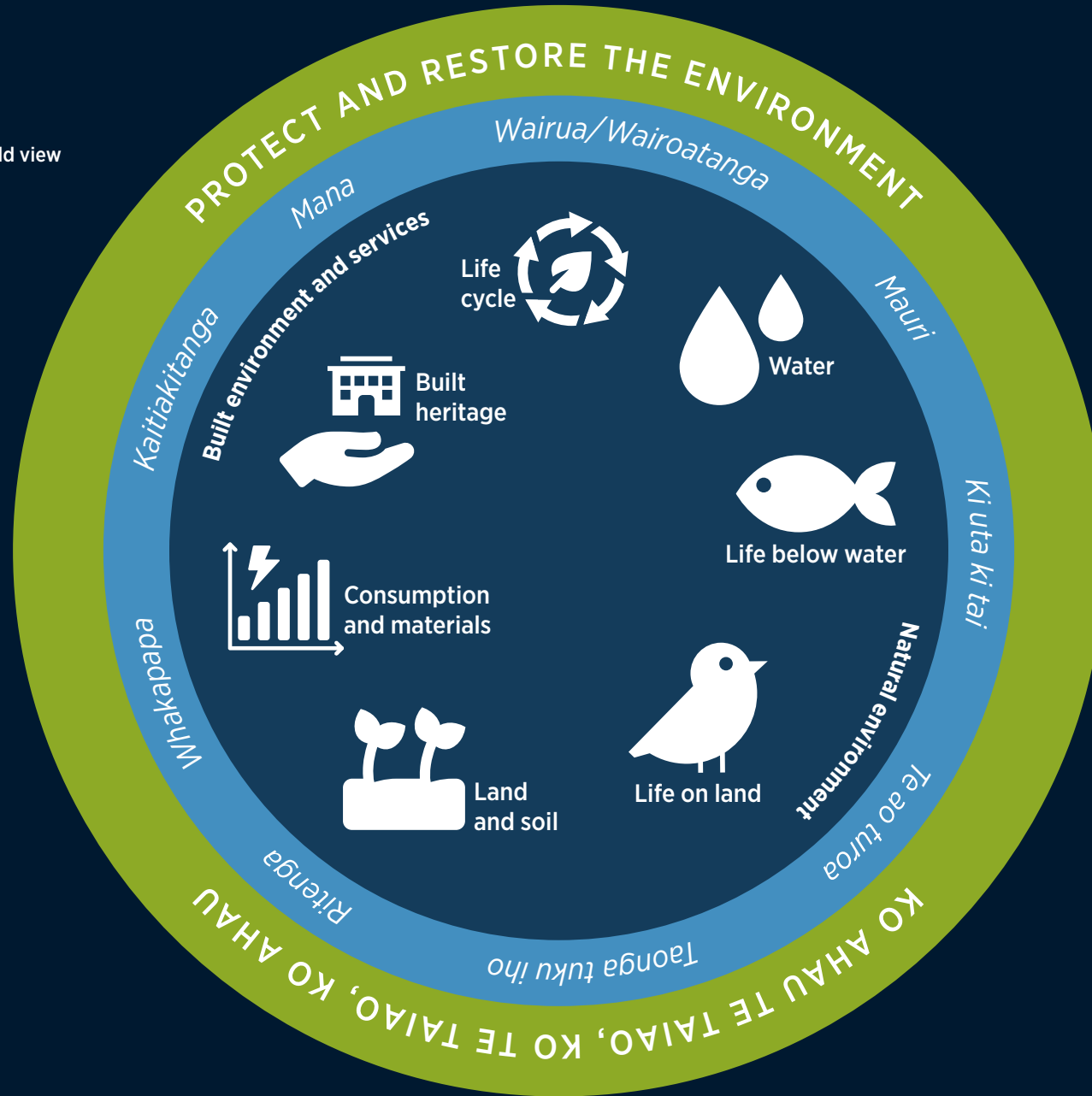
We weave the threads of Te Aranga Māori Urban Design principles through our decisions by:

- Recognising that wai is the life-blood of the country and the planet
- Recognising and understanding the role of a healthy environment in contributing to human health and wellbeing
- Taking care not to waste or pollute through the construction and operation of the transport network

Mitigating the impact of transport on the ability of Mana Whenua to undertake their kaitiaki responsibilities includes impacts on land, water, air and taonga (tangible/intangible). Tikapa Moana (Hauraki Gulf) suffers from the effects of poor water quality and lack of biodiversity as do a number of waterways across the Auckland region. Mana Whenua have long identified the impact on the mauri (essence of life tangible/intangible) of all things, including air and water (fresh or coastal), and the effect on ecology, biodiversity and cultural practices. The Sustainability Framework recognises the impact and responsibilities and, through the Environment Action Plan, seeks to provide a long-term approach to the environment.

Te Aranga Māori Urban Design Principles						
MANA The status of iwi and hapu as mana whenua is recognised and respected	WHAKAPAPA Māori names are celebrated	TAIAO The natural environment is protected, restored and/or enhanced	MAURI TU Environmental health is protected, maintained and/or enhanced	MAHI TOI Mana whenua significant sites and cultural landmarks are acknowledged	TOHU Iwi-hapu are captured and expressed creatively and appropriately	AHI KA Iwi/hapu have a living and enduring presence and are secure and valued within their role

Figure 2: Interconnected world view



Strategic alignment

Working together

Auckland Transport’s sphere of action is a network across the region, so we must work with others to contribute to the quality of the region’s environment. This Plan supports the six outcomes identified within the Auckland Plan 2050 so that Auckland can continue to be a place where people want to live, work and visit.

In developing this Plan, we have had particular regard to Ngā Pou – outcomes – defined within the Mana Whenua Kaitiaki Forum Strategic Plan 2030. It also aligns with and contributes to Auckland Transport’s commitments as set out within a range of other plans within the council family and with those of our partners (Appendix A).



- Te Tiriti o Waitangi
- Local Government Act 2002
- Resource Management Act 1991
- Climate Change Response Act 2019
- Environmental Reporting Act 2020
- Waka Kotahi NZTA Sustainability Action Plan 2020
- National Policy Statement – Freshwater Management 2020
- Government Policy Statement – Land Transport

- Auckland Plan 2050
- Strategic Plan 2030 *Te pai me te whai rawa o Tāmaki!*
- Urban Ngahere Forest Strategy
- Auckland Design Manual
- Stormwater Code of Practice
- Stormwater Asset Management Plan
- Growing Auckland Greener
- Auckland Indigenous Biodiversity Strategy
- Waste Management and minimisation Plan
- Low Carbon Auckland
- Regional Pest Management Strategy
- Auckland Climate Plan 2020

- Statement of Intent
- AT Business Plan
- Sustainability Policy and Framework
- Integrated Transport Programme
- Regional Land Transport Plan 2021-2031
- Roads and Streets Framework
- Climate Change and Emissions Action Plan
- Asset Management Plan
- Vision Zero
- Transport Design Manual
- Sustainable Procurement Action Plan

Strategic alignment continued



ENVIRONMENT

- AT Business Plan
- Hīkina te Wero
- Enterprise Project Management Framework
- Investment Portfolio Steering Group – Environment



Our approach

The following seven principles will guide the delivery of our objectives and goals.

Integration of te ao Māori

We recognise the need and benefit of integrating te ao Māori (including mana whenua matauranga and Māori design principles) in everything we do. Protecting, improving, enhancing, and restoring the mauri of our harbours and streams will improve the quality of life for all Aucklanders.

Foster and grow partnerships

Auckland Transport aims to develop strong and trusted relationships with mana whenua as kaitiaki and its other stakeholders so that we jointly contribute to the stewardship of our natural environment and cultural heritage.

Customer-oriented

Auckland Transport considers the needs and expectations of its customers in the planning, design, building and operation of transport services and infrastructure. We have a responsibility to future generations and for making places for the future.

Better than compliance

AT will demonstrate good stewardship of the environment in which we operate by looking for opportunities to design solutions that go further than compliance with environmental legislation and regulations.

Maintenance led (bigger than whole of life accounting)

Planning and designing infrastructure with long-term requirements in mind are more than just looking at a lifecycle cost. Being maintenance led anticipates how our infrastructure and services will operate and what we can do to make maintenance easier while improving the environmental outcome, costs, and the resilience of our assets.

Evidence-based decision making

Auckland Transport has a responsibility to inform its decision making through robust evidence. Our research, monitoring, and feedback will support ongoing improvements in our approach to the design and maintenance of new/improved infrastructure.

System stewardship

Our actions will continually evolve and be actively managed in order to remain relevant and strive for improvement.



Our vision

Auckland Transport improves the resilience and sustainability of the transport system for our tamariki and mokopuna.

Our goals

Natural Environment

- We improve the health and biodiversity of our land, streams and harbours

Built Environment

- We use our natural resources wisely

Our Organisation

- We transparently report our progress against targets

Our targets

Managing our discharges

AT owns and manages >7500 km of roading network across Auckland. The road network continues to grow each year as Auckland experiences unprecedented population growth and demand for new areas for housing and employment. This means that more runoff is discharging from our roads into Auckland's stream and harbours every year. Treating that runoff to improve the quality of the water is an important part of improving the mauri of our receiving environments.



TARGET

Runoff from 30% of our busiest roads will be treated by 2030.



KEY PERFORMANCE INDICATOR

Our progress will be tracked through measuring how much of the road runoff along our busiest roads is treated by treatment devices and will be used to help prioritise the location of these devices.



BENEFITS

Road runoff typically contains heavy metals such as copper and zinc from brake pads and tyres, dust and sediment from surrounding land, hydrocarbons from petrol and diesel vehicles and all sorts of litter and leaf debris. Reducing the volume of contaminants entering our streams/harbours provides an opportunity for fish and biota to thrive, improving the health of our environment. Recognising te mana o te wai and restoring the mauri of our waterways is an important part of ensuring the harbours and streams will be healthy for future generations to enjoy.



AT owns **>4500** stormwater quality treatment devices and **3500** gross pollutant traps/catchpit filters.

Most of these devices are **on residential roads** – not the busy ones.

AT owns approximately **90,000 catchpits** and **we sweep 12,700km** of kerb and channel each year

Average annual volume of sediment removed via street sweeping **= 4,750 tonnes** per annum

Catchpit cleaning **removes around 3,000 tonnes** per annum, with each catchpit capturing an average of 46kg wet waste (sediment, leaves and litter) each year.

Our targets continued



Greening our network

Auckland Transport manages over 7,500km of roads and many of these connect green spaces, parks and reserves with our natural waterways. Greening our network provides us with the opportunity to use our network as ecological corridors – corridors that provide environmental and ecological benefits and contribute to managing the impacts of climate change. Green corridors allow species to migrate through urban environments, enhancing biodiversity and the health of Aucklanders and our region. Green infrastructure is part of creating an ecological corridor through a strategically planned network of natural and semi-natural areas that includes the use of rain gardens, green roofs and walls, trees, gardens and other vegetation.



TARGETS

- Increase canopy cover along Auckland road corridors to an average of 12%, with a specific focus on south Auckland.
- Increase pervious surfaces along corridors that connect areas of high ecological value by 10% through planting, green roofs and paving.



KEY PERFORMANCE INDICATORS

We will record and track the areas of green infrastructure and pervious surfaces within the road corridor. In collaboration with Auckland Council we will regularly measure the canopy cover and street trees, particularly in south Auckland.



BENEFITS

Green infrastructure provides a wide range of benefits such as stormwater management, water purification, filtration of airborne pollutants, space for recreation and climate mitigation and adaptation and is an integral part of creating an ecological corridor. Trees are especially important, with larger mature species providing shading (heat stress reduction), evapotranspiration, carbon sequestration, habitats as well as improving mental health for residents in cities.



Auckland roads contribute on average
9% of the canopy
cover across our region.

Trees increase carbon sequestration

(soak up CO₂) as they age.

Our targets continued



Water conservation

Water is a precious resource. Even though it rains often in Auckland, that rain doesn't always fall in the right places and Auckland has periods of drought. Constructing and operating the transport network utilises water for dust suppression and vehicle washing through to bathroom facilities at our stations. We have noticed that it is common to use potable water for activities that don't need water of high quality and we are working to reduce the use of potable water in these areas.



TARGETS

- All AT capital/maintenance projects >\$5 million will establish non-potable water supplies for activities that do not need drinking-water quality water.
- AT will reduce the use of potable water by 5% annually.



KEY PERFORMANCE INDICATOR

Using the procurement process for new contracts, the use of non-potable water for construction, maintenance and operational needs will be tracked and reported by our contractors and staff.



BENEFITS

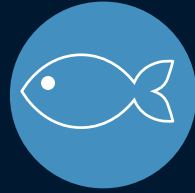
Ensuring that we only use non-potable water for activities such as bus and train cleaning, dust suppression and drilling means we are not wasting Auckland's clean water and are doing our part to help Auckland through the drought and the climate changes ahead of us.



Manukau Bus Depot has a **rainwater reuse system** for flushing toilets

Train washing at the Wiri Depot **uses only 17%** of the water consumed on site

Our targets continued



Fish passage and biodiversity

New Zealand has more than 50 native freshwater fish species. Many of these species need to move between freshwater and the sea to complete their lifecycles. If fish movement up and downstream is blocked, fish can not reach the habitats they need for breeding and already 70% of our native fish are threatened or at risk. Careful management of our culverts is required to ensure these do not act as a barrier to fish passage. Ensuring our native species are thriving is an important part of maintaining our biodiversity.



TARGET

Fish passage will be provided for 20% of the rural culverts located on permanent streams.



KEY PERFORMANCE INDICATOR

We will use the condition assessment processes to update culvert asset data and align this with the waterways assessments from Council to identify and prioritise fish passage improvements in our forward works programme.



BENEFITS

Removing barriers to fish passage provides access for fish to reach habitats and breeding grounds necessary for their lifecycle. Fish contribute to the biodiversity of New Zealand and are important part of supporting our native bird species. Vegetation and plant selection also play an important role in protecting the stream banks, improving water quality, providing shading and food for our many native species. A healthy and thriving ecosystem is part of creating a healthy city.



AT owns approximately
32,000 culverts (or 127,000 lineal metres of pipe)
with 18,000 being located in the rural parts of our region

2,500 AT culverts are located on permanent streams,
1500 of these are rural streams and we know that
36 rural culverts have barriers for fish passage at present (and 33 have no barriers)

Our targets continued



Minimising waste

Every year tonnes of waste are generated by construction, maintenance and operational activities associated with the transport network. Managing how we use materials is becoming more important as we recognise the limits on natural resources and the impact on the environment. Waste minimisation acknowledges that raw material sources are limited, and landfills have a finite volume too. Waste minimization involves changes to societal patterns that relate to production and consumption as well as redesigning products to eliminate the generation of waste.



TARGET

Waste volumes sent to landfill is reduced by 50% across construction, maintenance and operation of the transport network.



KEY PERFORMANCE INDICATOR

The volume of materials sent to and diverted from landfill will be recorded and tracked through procurement requirements of new contracts. The use of recycled aggregate will be supported through procurement processes and encouraged through stretch targets in collaboration with the aggregate industry and the Council family.



BENEFITS

Minimising the volume of waste produced helps us manage our natural resources wisely: we spend less money buying new/virgin materials and paying for disposal, there are fewer vehicles trucking material to landfill, reducing the demand for landfill space, energy and reducing carbon emissions. Waste minimisation also improves the environment, provides opportunities for social enterprises, supports the development of better production processes and redesign opportunities to eliminate waste.



Between **40-50%** of the material in the road corridor maintenance contracts is currently cut to waste/landfill.

AT currently sends approximately **30 tonnes** of asphalt millings for recycling every year during road resurfacing works.



Implementation Plan

In line with the principles of the Hīkina te Wero, Auckland Transport has a responsibility to inform its decision making through robust evidence. During the 2020/21 year, the interim targets were informed and refined as baseline data was collated and analysed. The targets in this Plan were updated to ensure they were appropriate and purposeful. Over the next nine years, these targets and measures of our progress will evolve to constructively guide and contribute to the outcomes we are seeking. Our progress against these targets will be reported annually.



Implementation Plan continued

Our actions

Auckland Transport has made a significant investment in gathering intelligence on its assets and services. However, that information is not necessarily suitable for use in advancing our environmental performance. Similarly, whilst some state of the environment information is available across the region as a whole, that same information is not always available for the road network and our transport facilities (i.e. our environment).

We also need to understand how our current processes perform against our articulated vision and the framework established by this Plan. In some areas we have already made good progress, so we need to review, and if necessary, adjust our actions to move forward.

Our actions are focused on two horizons, short-term (1-2years) and on-going.



Managing our discharges

- **Runoff from 30% of our busiest roads will be treated by 2030**

Implementation timeframe (years)	1 - 2 years	Ongoing
Partner with Mana whenua to deliver better water quality treatment designs on large developments such as Kainga Ora/Piritahi		●
Develop a framework to support AT projects reporting to the ELT/ Board to include water quality, broader environmental and climate change outcomes delivered by the project	●	
Promote the AT Design Guides for Bioretention Devices and Swales	●	
Proactively collaborate with Council to identify unsealed rural roads which discharge large volumes of sediment to sensitive freshwater and saline receiving environments for prioritisation under the Unsealed Roads Improvement Framework		●
Develop a business case for a work programme to provide funding to retrofit treatment devices within our busiest roads	●	
Partner with Healthy Waters to align the Urban Contaminant Reduction programme with ATs road improvements to support retrofitting water quality treatment devices along our busiest roads		●
Use Enterprise Project Management processes to ensure water quality treatment options are designed into AT projects where required	●	
Work through the Design Review Panel to ensure all AT projects include treatment and consider environmental outcomes		●

Implementation Plan continued



Greening our network

- **Increase canopy cover along Auckland road corridors to an average of 12%, with a specific focus on south Auckland.**
- **Increase pervious surfaces along corridors that connect areas of high ecological value by 10% through planting, green roofs and paving.**

Implementation timeframe (years)	1 - 2 years	Ongoing
Develop and promote a framework for AT project managers to understand and articulate the benefits and values associated with environmental outcomes of their project	●	
Monitor the trial green roofs on bus shelters to document learnings	●	
Prepare a work programme and business case to deliver further green roofs/walls on transport facilities	●	
Investigate opportunities for Mana whenua to be involved through social procurement of maintenance and planting		●
Collaborate with Council to align work programmes that deliver ecological corridors/green networks – Auckland’s Urban Ngahere Strategy		●
Promote the concept of roads at ecological corridors through marketing and customer central		●
Use procurement activities to require design and construction works to include trees and vegetation in new and improvement projects		●
Investigate connections between tree planting and climate change adaptation planning	●	
Research innovative pervious surface solutions for use within the road corridor	●	



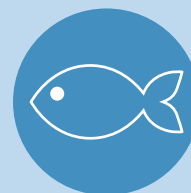
Implementation Plan continued



Water conservation

- All AT capital/maintenance projects >\$5 million will establish non-potable water supplies for activities that do not need drinking-water quality water.
- AT will reduce the use of potable water by 5% annually.

Implementation timeframe (years)	1 - 2 years	Ongoing
Auckland Transport will proactively monitor its water use across its facilities and projects		●
Include requirements for measuring and reporting on water consumption in construction and maintenance contracts, as well as requirement to identify actions to reduce use of potable water		●
Investigate opportunities to install drinking water fountains/bottle refill stations at all AT transport facilities ongoing		●
Use procurement processes to support best practices by our contractors and operators		●
Identify facilities where rainwater harvesting, or grey water recycling can be retrofitted now to build case studies – e.g. Matiatia 1-2 yrs	●	



Fish Passage and Biodiversity

- Fish passage will be provided for 20% of the rural culverts located on permanent streams.

Implementation timeframe (years)	1 - 2 years	Ongoing
Continue to update our asset data with specific fish passage condition assessments on each culvert we own		●
Include fish passage requirements in every new culvert constructed by AT or our contractors		●
Remove fish passage barriers when undertaking the renewals and maintenance works for existing culverts		●
Collaborate with Healthy Waters and Council to proactively identify priority culverts for barrier removal		●
Promote and use the Bioretention Planting Guide 2021 to improve the diversity of planting in the road corridor	●	

Implementation Plan continued



Minimising waste

- **Waste volumes sent to landfill is reduced by 50% across construction, maintenance and operation of the transport network.**

Implementation timeframe (years)	1 - 2 years	Ongoing
Develop specifications for assessing new materials to be used on the transport network which require consideration of end of life disposal and environmental impacts	•	
Develop specifications for all materials used in construction of the network to minimise the use of plastic and other environmentally harmful products	•	
Use procurement activities to require measuring and reporting waste to landfill and volumes diverted for construction and maintenance contracts		•
Develop best practice waste minimisation plans for AT facilities/operational sites to support reporting of waste volumes		•
Support suppliers and sub-contractors who actively reduce waste/implement circular economy principles		•
Finalise and promote the Aggregate Specification to increase the awareness of recycled aggregates	•	
Use procurement activities to support/require the use of recycled materials/aggregates in all maintenance and construction contracts		•



Reporting

It is also important that we share our insights as we gather data, whether on the state of the environment. From research or through tracking our performance. This is to ensure we can engage and involve contributors within or wider organisation, our partners and wider Council family, and our community. We will create a scorecard reporting system or dashboard to be submitted to the AT Board annually. In due course this will inform our contribution to the publicly available Auckland Transport Annual Plan and Statement of Intent.



Actions

Implementation timeframe (years)	1 - 2 years	Ongoing
Develop scorecard and reporting templates for annual update	●	
Develop reporting system for data portal	●	
Use procurement processes to ensure use of data portal for capturing project/physical works related information		●
Review the opportunity for attributes collated through the Plan to contribute to the development of an environmental indicator for the Statement of Intent.	●	
Review and update tools for collecting and reporting data from construction, maintenance and operational contracts		●
Submit an annual report to the AT Board		●

Glossary

Cultural heritage	Our collective heritage of: <ul style="list-style-type: none"> • air, land, and water • biodiversity • significant landscapes • historic features 	Mokopuna	Grandchildren
Fitness	The aptitude (i.e. willingness and ability) of a system to adapt and respond to its environment. Its resilience plus its adaptive capability and capacity.	Resilience	The ability to both withstand and recover from a 'shock'.
Kaitiaki/kaitiakitanga	Stewards/stewardship	Ritenga	Customary practice.
Ki uta ki tai	Mountains to the sea	Tamariki	Children.
Mana	Prestige, authority, status, spiritual power, charisma in a person, place or object.	Taonga tuku iho	Something handed down, heritage.
Mana whenua	Territorial rights, power from the land, authority and/or jurisdiction over land or territory — power associated with possession and occupation of tribal land.	Te ao Māori	Māori world view. This acknowledges the interconnectedness and interrelationship of all living and non-living things.
Matauranga	Knowledge and understanding	Te ao turoa	The mana of the wider environment around us.
Mauri	Life force, vital essence, special nature (including of a physical object, individual, ecosystem or social group in which this essence is located).	Wairua/Wairuatanga	Spirit/spirituality (distinct from the body and the mauri).
		Whakapapa	Lineage.

References

Auckland Council. 2012. Auckland Council's Indigenous Biodiversity Strategy.

Auckland Council. 2015. The health of Auckland's natural environment in 2015 Te ora o te taiao o Tāmaki Makaurau.

Auckland Council. 2016. Growing Auckland Greener. Te pai me te whai rawa o Tāmaki: Our commitment to the environment and green growth.

Auckland Council. 2018. Auckland Plan 2050.

Auckland Council. 2018. Auckland waste management and minimisation plan.

Auckland Council. 2019. Auckland's Urban Ngahere (Forest) Strategy.

Auckland Council. 2019. Our Water Future Tō tātou wai ahu ake nei: A discussion document.

Auckland Transport. 2012-2041 Integrated Transport Programme.

Auckland Transport. [date?]. Roads and Streets Framework.

Auckland Transport. 2017. Sustainability Framework.

Auckland Transport. 2018. Sustainability policy.

Auckland Transport. Statement of intent 2019/20-2021/22.

Auckland Transport. Auckland draft regional land transport plan 2015-2025.

Blom, C. (2017). Strategic intent and the management of infrastructure systems. PhD Thesis. Department of Engineering, University of Cambridge.

Harmsworth, G., and S. Awatere. 2013. Indigenous Māori knowledge and perspectives of ecosystems. In Dymond JR ed. Ecosystem services in New Zealand – conditions and trends. Manaaki Whenua Press, Lincoln, New Zealand.

Macaskill, K. and P. Guthrie. 2016. Post-disaster Reconstruction – What Does It Mean to Rebuild with Resilience? In: Masys A. (eds) Applications of Systems Thinking and Soft Operations Research in Managing Complexity. Advanced Sciences and Technologies for Security Applications. Springer, Cham.

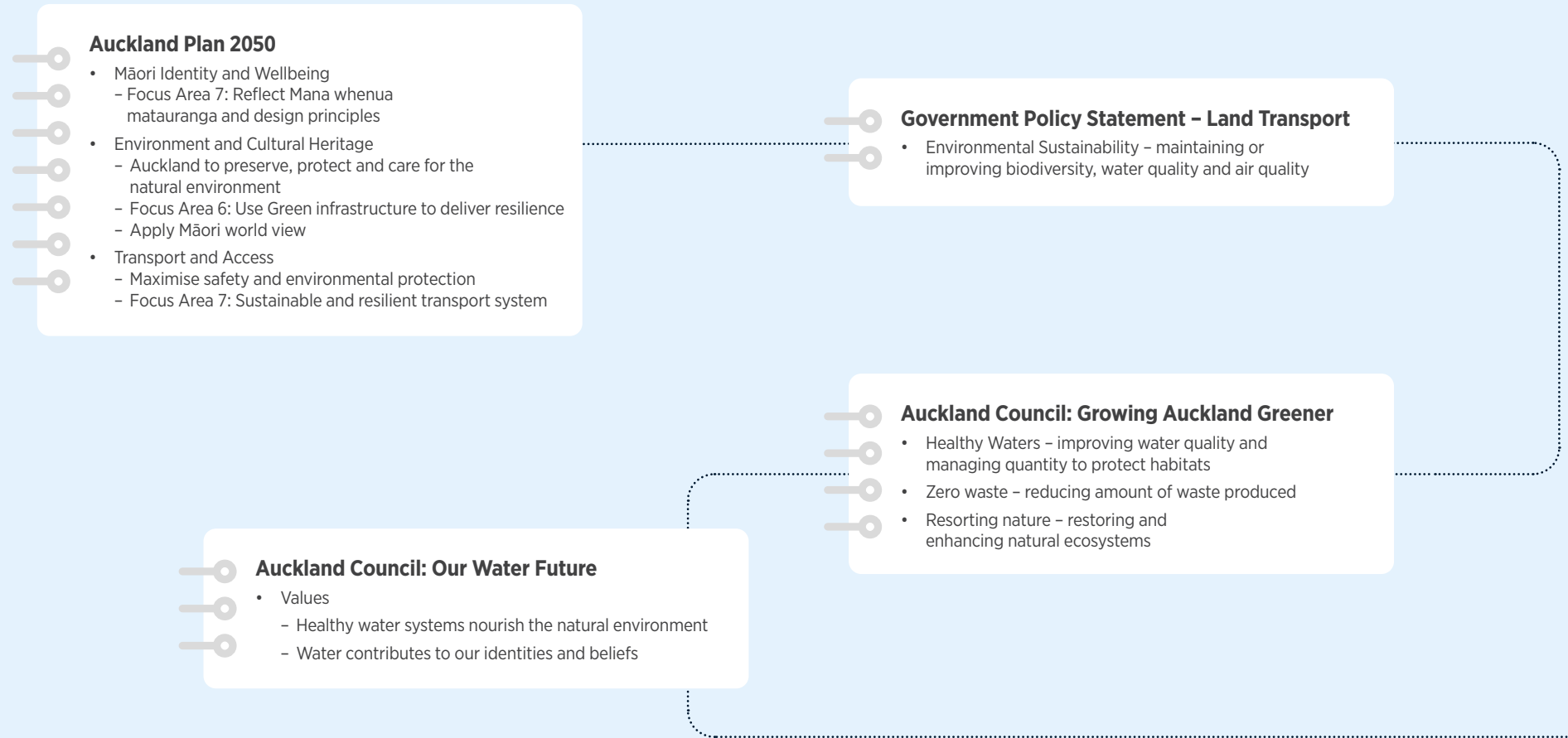
Mana Whenua Kaitiaki Forum. [date?]. Strategic Plan 2030 Te pai me te whai rawa o Tāmaki!

Ministry of Transport. 2020. Draft Government Policy Statement on Land Transport 2021.

Ministry for the Environment. 2020. Our freshwater 2020: New Zealand's environmental reporting series.

Appendix A

Strategic connections



Auckland Transport

- Purpose and Values: Thoughtful stewardship: kaitiakitanga of a sustainable place for our tamariki and mokopuna
- Statement of Intent: manage impacts of the transport system on the environment
- Sustainability Policy and Framework: conserve and enhance the natural environment, and partner with Mana whenua

Mana Whenua Kaitiaki Forum Strategic Plan

- Governance: Mana whenua leverage external relationships to realise their aspirations
- Culture and Identity: culture and identity is understood, respected and visible
- Natural Environment: The mauri o te taiao, mauri o te wai and oranga o te hau is improved and enhanced



Let's go there

