VERSION TO AT BOARD 28 JUNE

Auckland Regional Land Transport Plan 2021-2031

Auckland Council
Te Kaunihera o Tāmaki Makaurau

WAKA KOTAHI
NZ TRANSPORT AGENCY

KiwiRail

The Regional Land Transport Plan 2021-2031 sets out the land transport objectives, policies and measures for the Auckland region over the next 10 years. It includes the land transport activities of Auckland Transport, Auckland Council, Waka Kotahi NZ Transport Agency, KiwiRail, and other agencies.

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Auckland, Tāmaki Makaurau, is home to 1.7 million people – one third of all New Zealanders – and is forecast to grow by another 260,000 over the next decade, reaching around 2.4 million by 2050. This rapid population growth presents a number of challenges in our quest to be a liveable, climate-friendly and productive city.

Growth represents opportunity but when combined with Auckland's challenging natural setting and urban form the outcome has been increased congestion and limited connectivity. When we add in housing affordability, a global climate emergency and the Covid-19 health pandemic, Auckland has a lot to contend with.

Over the past 20 years, Auckland's civic leaders and central government have significantly boosted investment in transport and significant effort has gone into providing Aucklanders with more choices about how they travel around the region. A committed effort has been made to improve bus, train and ferry services and develop better infrastructure for those who walk and want to use a bike.

Evidence tells us that Aucklanders like the improved experience, particularly on rapid and frequent bus and train services where the number of trips has almost doubled in 10 years.

In 2019, Tāmaki Makaurau achieved a milestone with more than 100 million public transport boardings made – the first time that number had been achieved since the early 1950s, but we need many more Aucklanders to access better transport choices to reduce congestion, greenhouse gas emissions (GHG) and deaths and serious injuries (DSI) on our roads.

More than a third of Aucklanders live within 500 metres of a frequent public transport service, yet the majority of us still choose to use our private motor vehicle for most of our trips.

Auckland needs a well-coordinated and integrated approach to help people and freight get around quickly and safely – one that significantly reduces harm to the environment and where there are multiple transport choices.

This Auckland Regional Land Transport Plan 2021-2031 outlines our response to these challenges over the next 10 years.

The big picture – what has changed since the last RLTP

While it's only been three years, a lot has happened that makes updating the Auckland Regional Land Transport Plan 2018-2028 (2018 RLTP) necessary.

The 2018 RLTP represented a step-change in transport investment for Aucklanders, with a transformational programme to tackle existing and future transport problems. The introduction of a Regional Fuel Tax (RFT) and a $28 billion package to deliver 14 large-scale infrastructure projects provided the region with certainty and sparked accelerated momentum.

Focus on climate

Late 2019 Auckland Council declared a climate emergency, with strong pledges to introduce improved fuel emissions standards and accelerate the decarbonisation of Auckland's public transport bus fleet. In July 2020 the council unanimously passed the Te Tāruke-ā-Tāwhiri: Auckland's Climate Plan, which boldly aims to halve Auckland's GHGs by 2030. The plan's main transport actions are to encourage more of us to utilise public transport and active modes, decarbonise Auckland Transport (AT) contracted buses, and advocate to central government for policies to support lower and zero-emission vehicles.

This year, the New Zealand Climate Change Commission issued its advice to central government. Transport features strongly with advice to decarbonise the light vehicle fleet, step up to challenging growth targets for public transport, walking and cycling, and reduce the need to travel through remote working practices.

In 2019, an additional 16,600 cars (330 per week) were registered in Auckland, adding to congestion, contributing to increased emissions, clogging freight movements and costing Aucklanders time and money.

The road transport system contributes to 38.5 percent of Auckland's emissions and the Commission's advice and central government's response to it is critical to tackling climate change.

Aucklanders tell us they are supportive of tackling climate change yet the way to successfully execute the transition is both complex and unclear. It must be tackled using both a systems and evidence-based approach, and result in equitable outcomes.

Context cont.

The Impact of Covid-19

The team of five million has done a great job managing the risks of Covid-19. As a result, the economic impacts have been less than many initially anticipated. The transport response has also been very good when compared internationally[1] and as a consequence, the use of buses, trains and ferries has been much better than almost all other international cities.[2]

But Covid-19 has changed the way we work and travel. The rise of office meeting software such as 'Zoom' and 'Teams', has significantly impacted transport in Auckland, with major structural shifts in the need to travel for work purposes. People travel on buses, trains and ferries less frequently, while some have returned to the perceived 'safety' of private motor vehicles.[3] As a result, Covid-19 has severely impacted key cash revenue streams. AT has had to rely on greater funding support from Auckland Council, the National Land Transport Fund (NLTF) and the Covid-19 Response and Recovery Fund to maintain services and top-up reduced capital expenditure through the government's 'shovel-ready' programme.

Covid-19 has also impacted some parts of our community harder, raising social equity issues. It's raised the need for a continued focus on sustainable procurement practices and a heightened response to Māori, Pasifika and low income communities.

Transport through the provision of supporting services can be an enabler of more housing supply and help shape the type of housing that is built. In 2021 housing affordability and funding to provide roads for light vehicles, freight, buses and people on bikes, as well as train and ferry services to support housing growth at the scale required, remain challenges to be solved.

Review of Auckland Council Controlled Organisations

In 2020 the Independent Review of Auckland Council Controlled Organisations (CCOs) highlighted opportunities to improve responsiveness as well as the delivery of minor projects. A key recommendation was that Auckland Council and AT work with the Ministry of Transport (MoT) and Waka Kotahi NZ Transport Agency (Waka Kotahi) to streamline funding processes. This goes to the heart of delivering the transport system Auckland needs at a greater pace.

Transport system progress

Safety

Consultation on the Draft 2018 RLTP showed that Aucklanders were firmly behind greater investment to make the roading network safer. While much more needs to be done, subsequent investment has helped to reduce the number of DSI across Auckland's transport system.

In 2017, over 800 people died or were seriously injured on Auckland roads. DSI results have improved since the 2017 peak, with 525 DSI recorded on Auckland roads during 2020. This represents a 37 percent reduction, minimising the burden of road trauma on whanau and saving hundreds of millions of dollars in socio-economic costs to New Zealand. But we can do better.

Auckland continues to have one of the highest rates of pedestrian, cyclist and motorcyclist road deaths in the world and, following the second Covid-19 lockdown in Tāmaki Makaurau with less traffic on our roads, we saw the average speeds at which people travel in their cars increase, along with a significant uplift in DSI. Eleven people died during the last two months of 2020 and a further seven people died on Auckland's road network in February 2021 alone.

[1] AT's Covid-19 Response: A Review, January 2021, Draft for Discussion – An independent review completed by PwC
[2] Covid-19 Ridership Evolution, March 17, 2021 prepared by UITP
[3] AT RLTP Public Preferences Study, January 2021

Rapid and frequent train and bus services

Aucklanders have voted with their feet since the Britomart Train Station opened in 2003 and the Northern Busway opened in 2008. Use of these rapid transit networks has substantially increased, indicating that rapid and frequent public transport is critical to helping people move around the city. Annual train patronage increased 755 percent between 2003 to 2019 (2.5 million to 21.4 million) and annual bus patronage grew from 43.6 million in 2008 to 73.1 million in 2019.

As a result of broad scale effort, over $7.5 billion of new rapid transit projects are now either in construction or are in detailed design.

Since 2018, more electric trains have been delivered and more pieces of the Rapid Transit Network (RTN) are progressing including construction of the transformational City Rail Link (CRL), Eastern Busway, Puhinui Interchange to Auckland International Airport rapid bus services and Northern Busway extensions. The design of the Northwest Bus Improvements along SH16 and electrification of the rail network from Papakura to Pukekohe are also underway.

A third track between Wiri and Westfield is progressing. This will eventually allow express train services between the south and the city centre and unlock more freight capacity from the Ports of Auckland to distribution centres throughout Auckland and other regions.

Changes to rail legislation will also benefit Auckland by aiming to address longstanding rail funding issues and arrest the 'managed decline' of rail infrastructure.

Context cont.

The bus and ferry network

Auckland's modern bus fleet does the heavy-lifting in terms of public transport services. Coupled with the roll out of more dedicated bus and transit lanes that have increased productivity of key arterial roads, a regionwide new bus network was rolled out in 2018, doubling the number of Aucklanders who have nearby access to frequent bus services.

Early steps have been taken to decarbonise the bus fleet. Battery electric buses have been trialled and new electric fleets have been commissioned on Waiheke Island, on services between Puhinui and the Airport, and on CityLink services running between Karangahape Road and Wynyard Quarter.

A smaller but still important transport task is undertaken by ferries. The new ferry basin in Downtown Auckland will be the jewel in the crown of the ferry network. In the mid to longer-term we believe further improvements for ferry customers are an important part of Auckland's transport future.

Fare initiatives and promotions

Investment in new infrastructure and services has been supported by new public transport fare initiatives such as Child Fare Free Weekends, discounted off-peak fares and ferry fare integration.

AT's 'Home Free' promotion held on the last Friday evening before Christmas 2018, promoted public transport and, with the support of the New Zealand Police, discouraged drink-driving. This initiative was repeated in 2019 and 2020.

Safe cycleway infrastructure and shared paths

New safe cycleway infrastructure and shared paths have been built, and progress is being made on the remaining elements of the Urban Cycleways Programme such as Te Ara Ki Uta Ki Tai (Glen Innes to Tāmaki Shared Path).

The following projects are completed or progressing:

2020/21 Completed	Herne Bay to Westhaven Cycleway
	Victoria Street Cycleway
	Murphys Road Corridor Improvements
	Karangahape Road Streetscapes Upgrade
2020/21 To be completed:	Tāmaki Drive Cycleway and Flood Resilience Project – Separable Portion 1
2021/22: Planned	Eastern Busway Stage 1 Shared Path
	New Lynn to Avondale Shared User Path
	Glen Innes to Tāmaki Drive Shared Path – Section 2 (delivered by Waka Kotahi)
	Links to Glen Innes Cycleway – Package 1
	Tāmaki Drive Cycleway – Separable Portion 2
2022/23: Planned	Waitematā Safe Routes Cycleway – Section 1
	Great North Road Cycleway
	Links to Glen Innes Cycleway – Package 2a
	Glen Innes to Tāmaki Drive Shared Path – Section 4
2023/24: Planned	Waitematā Safe Routes Cycleway – Section 2
	Links to Glen Innes Cycleway – Package 2b
	Point Chevalier to Westmere Cycleway

There has been a 16 percent increase in trips on bikes since 2016 and this will accelerate once the Urban Cycleways Programme (from the inner west to Glen Innes) and the Northern Pathway are completed.

New Lynn to Avondale Shared User Path artist rendering

Roading

Over the past three years there has been significant capacity improvements on our state highways to the northwest and south of Auckland. Similar improvements are underway between Puhoi and Warkworth.

Roading optimisation projects, including the introduction of transit and dynamic lanes on Whangaparāoa Road and Redoubt Road, have reduced travel times for locals and boosted productivity. Multi-modal roading projects such as Murphys Road, Medallion Drive Link and Matakana Link Road are helping to unlock housing developments.

Congestion in some parts of the region is affecting the productivity of the arterial roading network, which impacts freight movements and private journeys. Intersection improvements have been made at Great South Road/Church Street, Ti Rakau Drive/Gossamer Drive, and Favona Road/Savill Drive.

In early 2020, central government announced the transfer of some RFT-funded projects and other projects to the New Zealand Upgrade Programme (NZUP). It was revised on 4 June 2021. The programme brings large-scale investment forward through multi-modal projects such as the South Auckland Package and Penlink on the Whangaparāoa Peninsula, the Northern Pathway, electrification of the rail line from Papakura to Pukekohe, and new train stations in Franklin.

Value for money and financial sustainability

There has been a significant escalation in programme costs. As well as land costs, real effort has been made to ensure workers – such as bus drivers – enjoy wages and conditions which make the industry attractive to work in. The demand for more services over time will mean more frontline staff are required to make our transport system work.

Parts of the construction industry have struggled over the last three years and it's clear that New Zealand needs a construction industry which is financially sustainable and safe. Auckland is just one of a cluster of cities in Australasia investing heavily in transport, and the way we procure, share risk and partner with industry is crucial to bringing this RLTP to life.

Context cont.

Looking to the future

The experience we give customers – whether making a trip in a car, in a truck, on a bike, bus, train, ferry or on foot – are at the heart of a successful transport system. An efficient, safe, connected transport network is critical to get everyone where they want to go, deal with freight, encourage more sustainable transport choices, and serve as a catalyst for a more compact city.

For the last 15 years transport agencies have worked to maintain a growing stock of existing and new infrastructure. There is still more to come, including additional Waitematā Harbour connections and rapid transit, but funding is limited and decisions are required in terms of priority projects.

New Zealanders are beginning to see the consequences of existing infrastructure failing and are quickly understanding it needs to be looked after. The 2020 closure of the Auckland Harbour Bridge (which led to significant reductions in lane capacity for close to three weeks), rail track problems, and issues with water infrastructure have all highlighted the impact and disruption that can occur when assets are damaged by weather or inadequate maintenance and renewals.

We must look after transport assets on behalf of the region. Auckland does not have the same economies of scale as some other like-minded cities so a focus on innovation, technology, value for money and integrated planning is key to deliver what people want.

This 2021 RLTP builds on the 2018 RLTP, but seeks to speed up progress. It has a greater emphasis on looking after the region's transport assets, safety and climate change.

The need for sustained investment in transport infrastructure, built as soon as possible, is a top priority. As underpinned by central government in its Covid-19 response, there is an opportunity for infrastructure works to generate jobs and help New Zealand recover while providing safe travel choices for residents and visitors, and better accommodating our daily lives and special events.

Transport in Auckland over the next 10 years might be viewed as a decade of two halves. In the first half we plan to finish what is already underway. Some very big construction projects are underway – the CRL, the Eastern Busway, Northern Busway extension, Matakana Link Road and the Urban Cycleways Programme.

KiwiRail is advancing with electrification of rail services between Papakura and Pukekohe, and a little further behind are interim bus improvements to the northwest and the Northern Pathway.

In the second half of the period under this RLTP, a range of new programmes will gather momentum. Projects and programmes such as Connected Communities, service-led improvements on the Airport to Botany rapid transit route, and investment in renewals will really come into focus.

The link between technology and transport is more and more obvious. Covid-19 highlighted the value of previous investments in AT HOP and the AT Mobile app, and we are increasingly seeing the role technology can play in making our roads safer through the likes of red light cameras and more productive dynamic lanes. E-scooters and e-bikes for hire and car-sharing schemes are further evidence of how technology is enabling changes in the way we travel. The ongoing investment in technology with a focus on transport customers is an important piece of the puzzle when it comes to delivering a better transport system.

Now, more than ever, we need all those involved in setting the policy and regulatory framework, whether at a central government or local government level, to step up to the significant challenges of delivering an effective, efficient and safe transport system in the public interest. This needs to be done in a way which recognises that the transport system of Tāmaki Makaurau serves a diverse range of communities in what is New Zealand's largest and fastest growing region. What works in rural New Zealand may not be fit for purpose in Auckland, and vice-versa.

There are a number of opportunities to bring transport policy and regulation in line with the needs of Auckland's transport system. Whether it be safety outcomes to improve the deterrence framework, roading productivity outcomes and the existing ways in which Aucklanders pay to use their roads or parking or climate change, our future transport regime must look different.

The outcomes from the 2021 RLTP are covered in Section 8.

For the first time this RLTP includes a programme of activities targeted at policy and regulatory interventions which will provide Aucklanders with better outcomes from their transport system.

Population growth and the reliance Aucklanders have on their motor vehicles means it's essential to have conversations with other agencies about potential interventions to meet Auckland and New Zealand's climate change targets. We are already investing in low-emission buses and electric trains, completing scheduled cycle, bus and rail projects, creating low-emission vehicle zones, introducing charging stations for electric vehicles (EVs), and promoting cycling and walking. However, there is the potential to achieve so much more with financial incentives to purchase EVs, an increased use of biofuels, and improved vehicle fuel-efficiency standard regulations. There have been clear recent signals that central government is considering some of these changes.

Road pricing (or congestion pricing) is another important area of regulatory change. The current way Aucklanders pay for using their roads does not incentivise them to be used in the most productive way, or support climate change outcomes.

A better transport system depends upon regulation and policy, and this RLTP outlines a plan for policy advocacy and policy change. In many cases such change requires political assent, and so the plan is clear about where change must be driven from and the outcomes sought. It's crucial that the full range of tools is being used to deliver value for money for ratepayers and taxpayers.

The ATAP 2021 investment programme for Auckland is historically significant and substantial in the Covid-19 impact context. So much, like the CRL or the Eastern Busway, is already underway or core to keeping Auckland moving. Having so much already in construction or well advanced in project development is a good thing – it's a sign of progress. On the downside it leaves limited room for new or additional investments.

After operations, maintenance, renewals, committed and essential capital works, $2.1 billion is available for new investments to deliver the transport outcomes Aucklanders want. Any new investment can only be progressed late in the decade when the funding demands of big transformational projects (such as the CRL and the Eastern Busway) ease off, or if additional funding above and beyond that signalled in ATAP becomes available.

03.
Feedback from consultation

This section summarises the feedback received through submissions on the Draft 2021-2031 Regional Land Transport Plan.

Public consultation on the Draft 2021-2031 RLTP ran from 29 March to 2 May 2021. We presented at five hui (attended by 12 Iwi), held 21 local board workshops, 11 public drop-in sessions, two webinars, a workshop with advisory panels and a partner and stakeholder event.

The consultation was promoted in a number of ways, including:

- Distributing printed fliers to nearly 530,000 properties and post office boxes around the region
- Digital advertising which reached 744,000 unique devices in the Auckland region
- Newspaper advertising in the NZ Herald, 18 community newspapers around the region, AUT and Auckland University publications as well as the Chinese Herald, Kakalu O Tonga, Mandarin Pages and the Indian Weekender
- Advertising on digital screens across Auckland's transport network – located at exits and entrances at rail, bus and ferry terminals
- Posters on trains, buses and ferries which had the potential to reach 280,000 commuters each day
- A Facebook advertising campaign which reached 82,389 people in Auckland
- Translating consultation materials into Te Reo Māori, Tongan, Samoan, Simplified Chinese, Korean and NZ Sign Language.

We sought specific feedback on:

1. Whether we correctly identified the most important transport challenges facing Auckland
2. Funding allocation
3. Projects to add and/or remove from the RLTP
4. Policy changes.

Feedback received

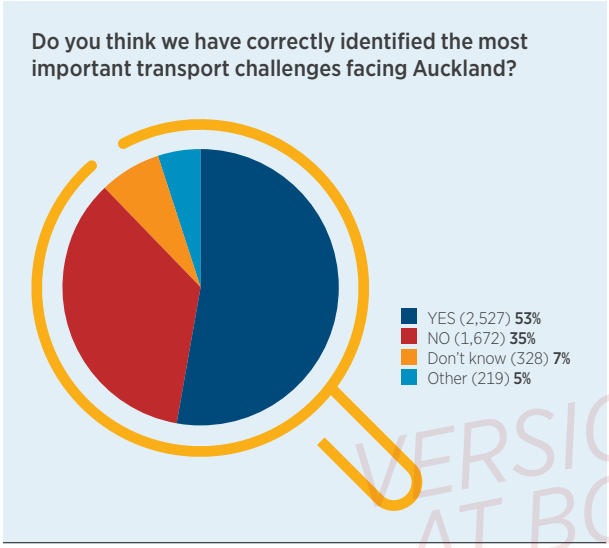
We received 5,818 submissions, including 110 from partners and stakeholders. This included submissions from all 21 democratically elected local boards who together represent 100 percent of Auckland's population.

Submitters responded to a mix of tick-box and open-ended questions in the consultation feedback form, and we received submissions via email and in person.

The feedback received was carefully considered. Every submission was read, analysed and collated into a public feedback report which is available at https://at.govt.nz/rltp.

The following is a high-level overview of the responses we received.

1. Have we correctly identified the most important transport challenges facing Auckland?



We asked people if they felt we had correctly identified the most important transport challenges facing Auckland, which were:

- Climate change and the environment
- Travel choices
- Safety
- Better public transport connections and roading
- Auckland's growth
- Managing transport assets.

Fifty three percent of submitters agreed we have correctly identified the most important transport challenges facing Auckland.

Of those that did not select 'yes', many took the opportunity to:

- emphasise the importance of one of the challenges already raised,
- identify challenges they didn't support, or
- give a specific example of a project or activity they felt was important.

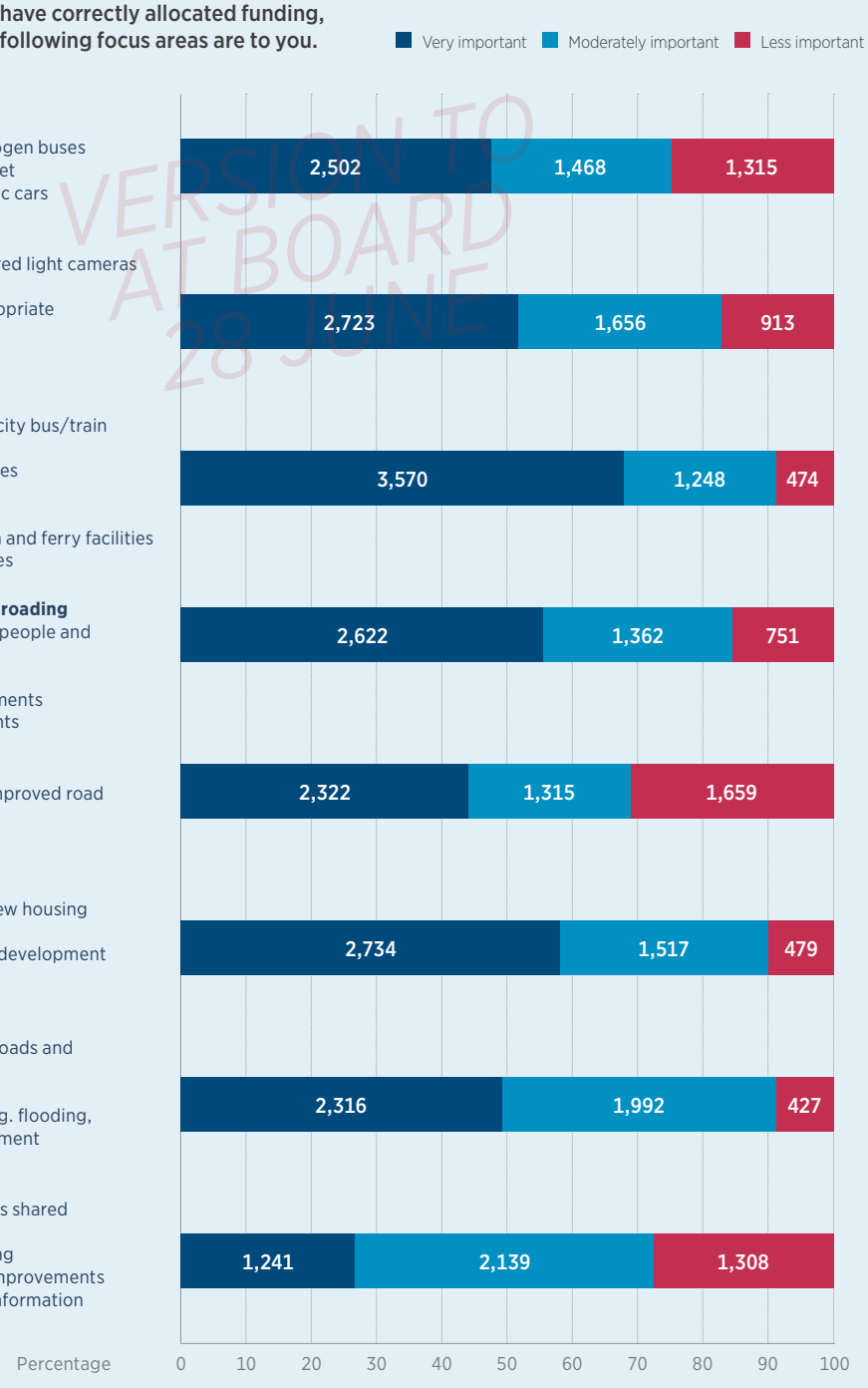
The most popular themes in the responses to this question are captured on page 16.

Feedback from consultation cont.

2. Funding allocation

We sought feedback on the level of support for specific areas of focus that inform the prioritisation of funding. Between 68 percent and 91 percent of submitters said they were very or moderately important areas to allocate funding towards.

To help us understand whether we have correctly allocated funding, please indicate how important the following focus areas are to you.



Top themes – sentiment on challenges/focus areas

Feedback theme	No. of mentions
Heavy rail is important and/or should be the priority	**1,673**
Bus network is important and/or should be the priority	**1,639**
Ferry transport is important and/or should be the priority	**1,530**
Bus rapid transit is important and/or should be the priority	**1,405**
Cycling is important and/or should be the priority	**1,337**
Roads are not important and/or do not invest in roads	**1,193**
Walking is important and/or should be the priority	**1,123**
Climate change is important and/or should be the priority	**1,119**
Safety is important and/or should be the priority	**1,007**
Roads are important and/or should be the priority	**889**

Other viewpoints

We received 110 submissions from partners and stakeholders, who, in some cases, represented large groups of people, businesses and industry sectors. Their submissions covered a range of matters, many of which are not reflected in the condensed commentary above.

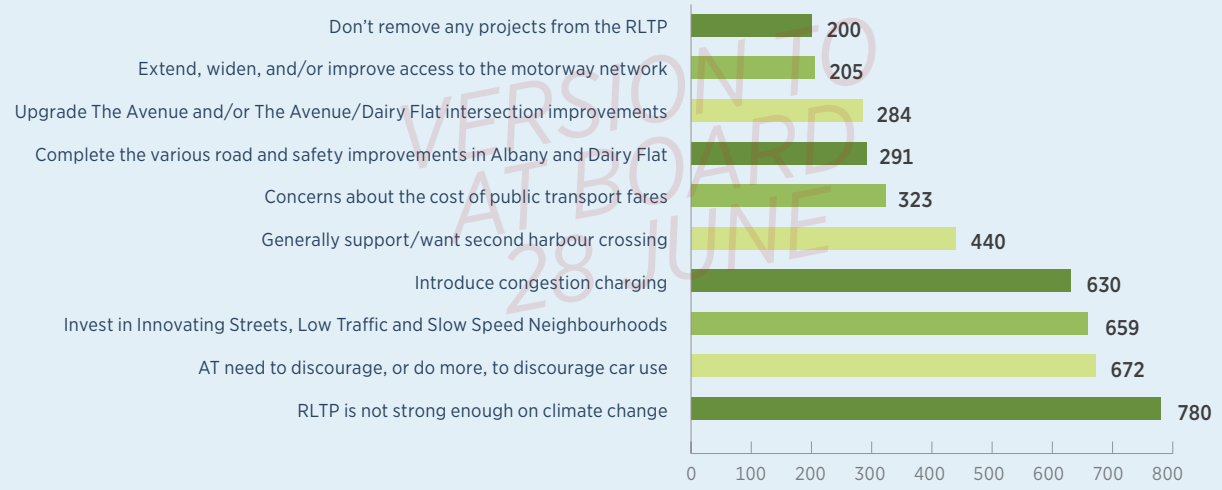
Some submitters, particularly those that represent road users, noted their concerns at the levels of congestion in Auckland and the concern that this could worsen. This impacts negatively on access and connectivity for road users, including freight. They felt the RLTP should have a greater focus on easing congestion for people and freight which make up the majority of users of the network.

All partner and stakeholder submissions are available in full in the public feedback report on our website.

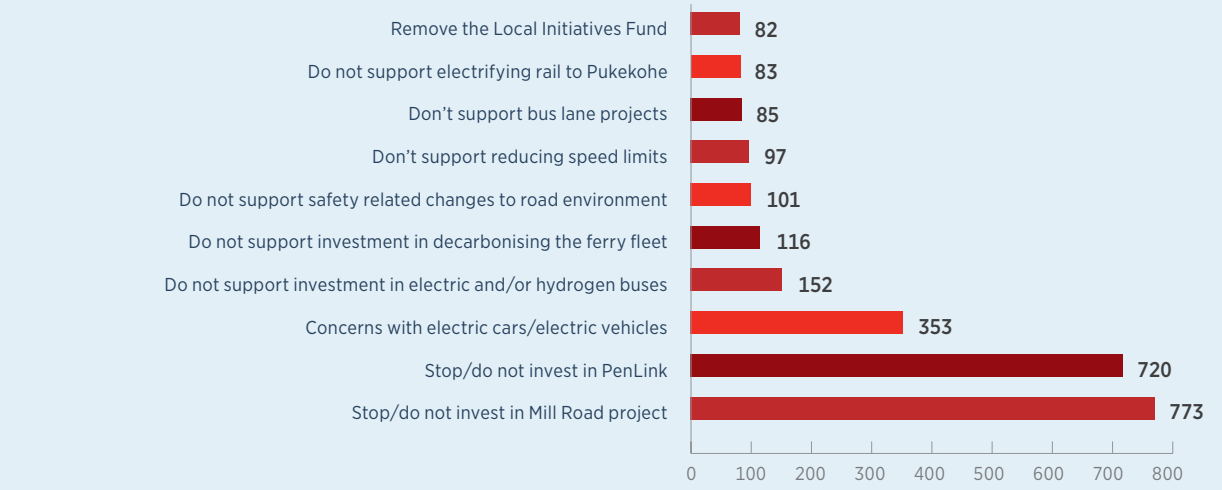
3. Projects to add / remove from the RLTP

We asked people to consider all of the projects included in the draft RLTP and let us know if there are any other projects they felt should be included. And if so, which project(s) would they remove in order to add any new projects.

Top 10 themes – Which projects should be ADDED to the RLTP?



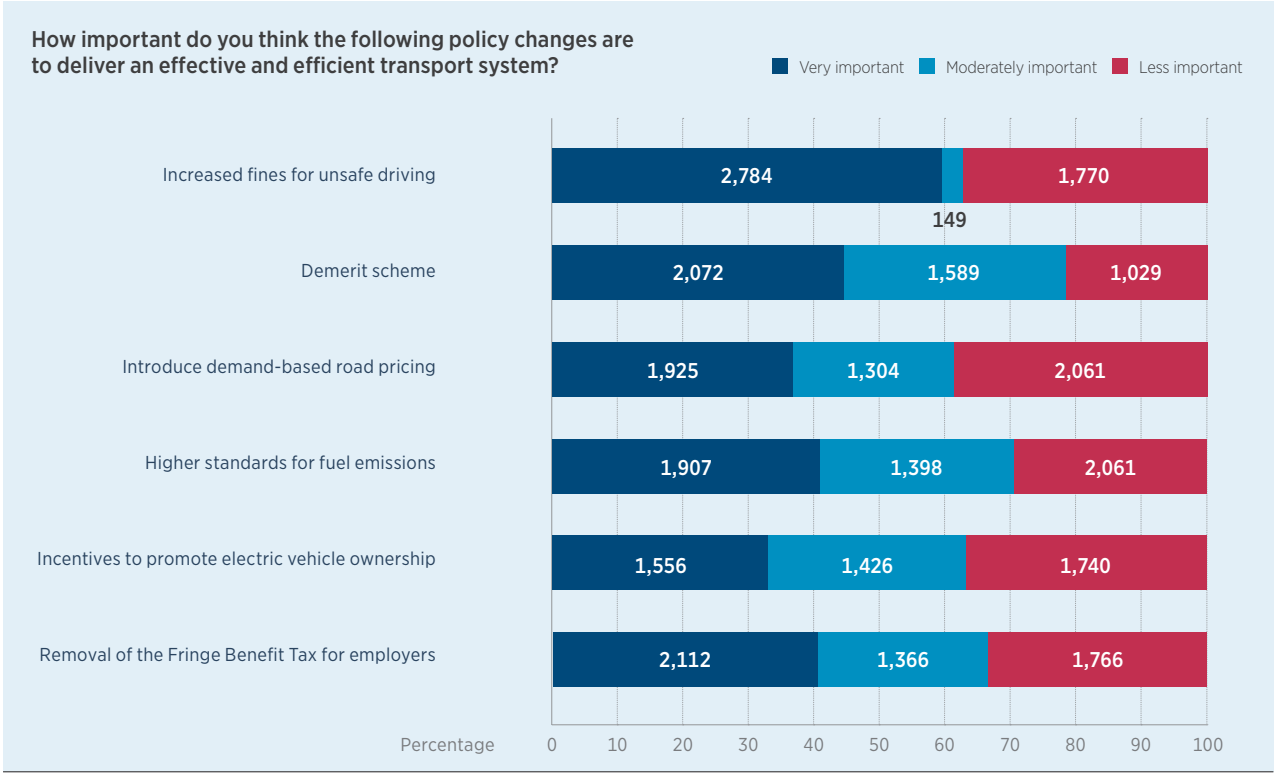
Top 10 themes – Which projects should be REMOVED from the RLTP?



4. Policy change

Delivering a transport system that works effectively and efficiently relies on transport policy and regulations. In order to further improve the safety of our roads, reduce congestion and tackle climate change, policy changes will be required. Some changes can be implemented by AT but the most significant ones would need to be led by central government. This would require strong advocacy to central government to progress.

Between 61 percent and 78 percent of submitters felt the policy changes put forward were very or moderately important to deliver an effective and efficient transport system.



Key themes from Māori

AT presented at five hui attended by 12 iwi. The feedback provided at the hui covered a range of issues, including:

- Safety, particularly around schools but also rural roads
- The uptake of electric vehicles, including leadership by Auckland Council and AT in converting to hybrid/ electric vehicles,
- The environment, including impacts of transport on freshwater management, and
- The Regional Fuel Tax (RFT).

We received written submissions from Te Ākitai Waiohua, Ngāti Whātua Ōrākei Whaimāia and Te Uri o Hau. A summary of the themes raised through these written submissions follows.

Electric vehicles and higher standards for fuel emissions

There were concerns that policies that reduce the number of higher-emitting vehicles, or that incentivise the uptake of EVs, can disadvantage lower income households including Māori who may be unfairly impacted by these policies or unable to access the benefits from these incentives.

Environment and climate change

There were concerns about the 'low' prioritisation of funding for the environment, sustainability and climate change. Increased population will put further stress on the environment and more resource needs to be dedicated to reducing carbon emissions. It was noted that no chemicals should be used on roading and footpath projects, (especially near waterways), to avoid polluting waterways.

Feedback from Consultation cont.

Travel choice, walking and cycling

There was support for projects which encouraged mode shift and active modes of transport, and for greater investment in the public transport network. Iwi felt more needs to be done to reduce public transport journey times and make it more attractive, reliable, affordable and better integrated.

It was also pointed out that there are limited travel choices for communities in the outer areas of Tāmaki Makaurau, who are often lower income earners.

Equity

Iwi said the RLTP needs to give more consideration to lower income communities who are also adversely affected by RFT.

Clearways and transit lanes

Iwi want greater enforcement to improve bus journey times by reducing the number of vehicles illegally parking in clearways and transit lanes.

Congestion

More needs to be done to reduce the number of single occupancy vehicles clogging our roads. One hapū expressed support for congestion charging on urban arterial routes that are already well-catered for by public transport. Another expressed concerns about implementing congestion charging where it is not preceded by a public transport system that is efficient, safe and priced to meet the needs of lower-income households including Māori and other disadvantaged groups.

Local Board feedback

Auckland Council staff carried out an analysis of the draft RLTP feedback from local boards (which can be viewed in full in the public feedback report on the AT website).

Below is an overview of the main themes which came through in the feedback from the 21 local boards.

Local Board Initiatives Fund (previously Local Board Transport Capital Fund)

All local boards endorse the proposed investment package in the RLTP to reinstate the Local Board Transport Capital Fund to $20 million, with many noting that this fund has been crucial in achieving smaller scale local improvements, particularly for pedestrians and cyclists.

Climate change and the environment

Local boards broadly supported the key shift from the previous RLTP to respond to climate change and its impacts, but observed that the actions outlined will not reduce emissions enough to achieve the targets outlined in Te Tāruke-ā-Tāwhiri: Auckland's Climate Plan.

Mode shift

Ten boards expressed support for projects and programmes that encouraged Aucklanders to switch to sustainable travel modes and reduce the increase in private vehicle travel associated with population growth.

Four local boards noted that public and active transport is not a choice available for many Aucklanders, particularly for those in greenfield developments, semi-rural and rural areas.

Electric/hydrogen buses

Eight local boards supported a funding acceleration of the Low Emissions Bus Roadmap to ensure at least half of Auckland's bus fleet is low emission by 2031.

Funding to support the uptake of electric cars

Seven local boards supported the inclusion of funding to support the uptake of EVs.

Most boards see the appropriate role for AT as providing and supporting charging infrastructure, and several local boards would like to see this extended to electric bicycles and other micro-mobility modes as well.

Impacts of climate change on the transport system

Eight boards supported investment in projects that mitigate the impact of climate change on the transport system.

Their concerns included sea level rise, extreme weather events (including drought), wave inundation, flood-prone areas and run-off systems, and slips. This is especially so in those rural and island areas where there are no alternative access points. Significant investment will be required to ensure the network remains resilient and adaptable as these changes are magnified.

Green infrastructure

Ten local boards supported increased investment in infrastructure that reduces negative environmental impacts and increases the restoration and regeneration of the environment.

Rapid transit

Twelve local boards supported investment which increases the speed and reliability of bus services by moving more of them into dedicated bus and transit lanes, separated from general traffic

Local boards emphasised the importance of local connections to rapid transit hubs, including for people walking and on bikes.

Active transport

Fourteen local boards supported initiatives that increase the safety of people on bicycles across the wider transport system.

Ten local boards would like to see AT invest more in creating and maintaining safer footpaths and walkways.

Nine local boards supported investment in walking and cycling as core business for AT, and would like to see a greater investment in these areas.

Accessibility improvements

Six local boards supported investment in accessibility improvements at bus, train and ferry facilities.

New park and rides

Eight local boards supported investment in new and extended park and ride facilities.

Ferry services

Nine local boards supported the inclusion of funding to start decarbonising the ferry fleet.

Four boards would like to see an increased focus on the ferry network and associated infrastructure (including feeder buses) to enable coastal communities to engage in off-road transport options.

Public health and safety

Eleven local boards supported continued delivery of the safety programme as set out in the Vision Zero for Tāmaki Makaurau Transport Safety Strategy in 2019, and supported investment in transport that reduces DSI, noting that the RLTP investment aims to reduce DSI by 67 percent over the next 10 years.

Schools

Nine local boards supported investment which improves safety near schools.

Speed limits and traffic calming measures

Ten local boards supported measures that addressed speed limits and other traffic calming measures.

Access and connectivity

Local boards supported providing transport infrastructure for new housing developments and growth areas so long as this is focused on public transport and connections for active modes.

Managing transport assets

Several local boards noted that low renewal expenditure over the 2018-2021 period (including due to budget impacts from Covid-19) has created a renewal backlog and support increased investment in road renewal, rehabilitation, and maintenance.

Local boards see like-for-like renewals as a risk in terms of affecting transformational shifts to meet the challenges of growth and climate change. They felt the renewal approach should include a review process that tests for mode shift opportunities rather than a default to like-for-like replacement, or that the budget allocated for road renewal and road improvements be combined so that roads can be assessed for improvement or renewal at the time of renewal.

Unsealed roads and chip seal

Five local boards supported investment in unsealed road and signage improvements.

Several local boards requested changes are made to sealing methods, particularly with cycling in mind.

Franklin and Rodney Local Boards advocated for increased renewal, rehabilitation, and maintenance funding to be made available to AT to renew at least 12 percent of Auckland's sealed roads and bridges in any given year (currently below nine percent).

Congestion charging

Five local boards expressed their support for congestion charging.

Process and communication

Several boards have requested that the process and timeframes for local boards to input effectively into the RLTP are improved. They wanted the opportunity for more input into the draft RLTP and to ensure feedback from their local communities.

04.
Purpose and scope

The Regional Land Transport Plan

The statutory purpose of the RLTP is to set out the Auckland region's land transport objectives, policies and monitoring measures for the next ten years. It includes the land transport activities of AT, Auckland Council, Waka Kotahi, KiwiRail, City Rail Link Limited (CRLL) and other agencies, and must be prepared every six years in accordance with the Land Transport Management Act 2003 (LTMA).

The RLTP must contribute to the purpose of the LTMA and be consistent with the GPS and take into account a range of other matters, including likely funding from any source and any relevant national and regional policy statements. RLTP development is also expected to align with guidance provided by Waka Kotahi, which includes setting out specific problem statements, challenges, expected outcomes and funding priorities.

The vast majority of publicly funded land transport activities in Auckland are contained in the RLTP, including:

- Transport planning and investment in improvements for customers
- The road network, including state highways
- Road safety activities delivered in partnership by AT, Waka Kotahi, and the New Zealand (NZ) Police
- Public transport (bus, rail and ferry) services
- Improvements to bus stops, rail stations and ferry wharves, and the creation of transport interchanges and park and ride facilities
- Footpaths, shared paths and cycleways
- Management and improvement of rail track infrastructure by KiwiRail and CRLL
- Parking provision and enforcement activities
- Travel demand management.

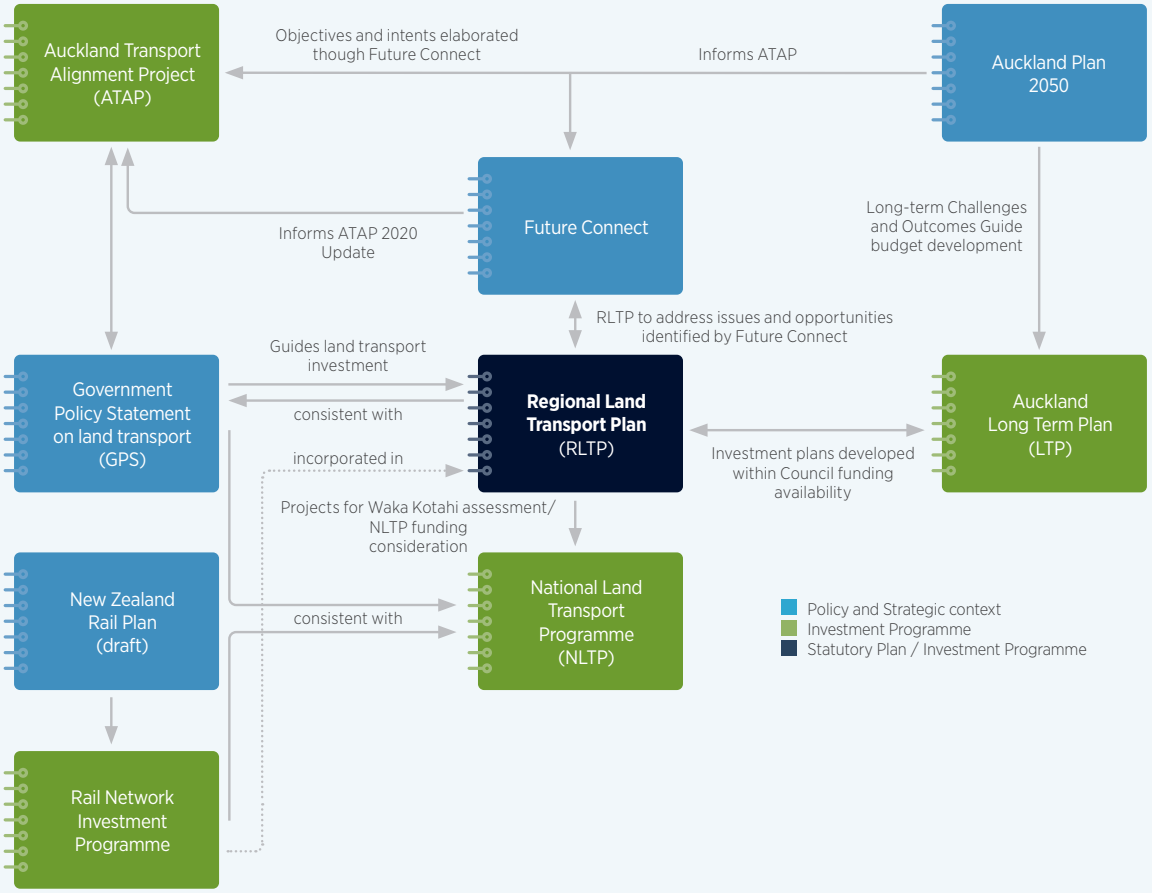
The RLTP does not cover transport activities carried out by private entities, such as private developers or Auckland International Airport Ltd (AIAL) or, for example, the important role that NZ Police play in keeping our roads safe.

The Regional Transport Committee (RTC), which comprises the AT Board and representatives of Waka Kotahi and KiwiRail, is required to prepare a new RLTP every six years, and to review it during the six months prior to the end of the third year of the plan to ensure it is relevant, aligned with the strategic context, and responds to the GPS.

Additional steps are being were taken in the development and approval of this RLTP to reflect the Review of Auckland Council's Council Controlled Organisations (CCOs) which recommends:

'AT and the council jointly prepare the RLTP, the draft of which the council endorses before going to the CCO's board for approval.' [4]

[4] Report of Independent Panel (2020). "Review of Auckland Council's council-controlled organisations", P4.



Policy context

The figure above provides an overview of how the RLTP interacts and aligns with strategic policy documents, and central government and Auckland Council investment programmes.

Key planning documents and other information that have guided the preparation of this RLTP are briefly described below.

The 2021 Auckland Transport Alignment Project

In 2015, the New Zealand Government and Auckland Council joined up to address Auckland's transport challenges and ensure the opportunities of a growing and diverse region are maximised. This strategic approach to transport was agreed through the Auckland Transport Alignment Project (ATAP).

ATAP includes a cross-agency partnership including the MoT, Waka Kotahi, KiwiRail, the Treasury, Auckland Council, AT and the State Services Commission, and decision-making with respect to ATAP rests with the Government and Auckland Council.

Since 2015, ATAP has delivered a series of strategic reports and develops an indicative 10-year package of transport investments for Auckland (the 'ATAP package') on a regular basis. This package informs statutory processes including the National Land Transport Programme (NLTP) and this RLTP.

In 2020, central government and Auckland Council requested that the ATAP 2018 package be updated to reflect:

- The impacts of Covid-19, including the impacts on Auckland Council and government revenue
- The NZUP of transport investment in Auckland
- Climate change and mode shift as increasingly significant policy considerations
- The need to provide direction to the upcoming round of statutory planning processes including the RLTP, the Auckland Long Term Plan (LTP), the GPS and the NLTP
- Emerging priorities for urban development (such as housing) in Auckland.

Purpose and scope cont.

Central government and Auckland Council also agreed a revised set of objectives for the ATAP 2021:

- Enabling and supporting Auckland's growth, focusing on intensification in brownfield areas, and with some managed expansion into emerging greenfield areas.
- Providing and accelerating better travel choices for Aucklanders
- Better connecting people, places, goods and services
- Improving the resilience and sustainability of the transport system, significantly reducing the GHG emissions the system generates
- Making Auckland's transport system safe by eliminating harm to people
- Ensuring value for money across Auckland's transport system through well-targeted investment choices.

One particular benefit of ATAP for Aucklanders is a dramatic increase in the funding available for transport investment. Because of the lead times for new infrastructure projects the noticeable benefits of this will become more apparent over the next three to four years.

For more information on ATAP 2021 visit www.transport.govt.nz/area-of-interest/auckland/auckland-transport-alignment-project

ATAP and the RLTP

The terms of reference for ATAP 2021 were explicitly intended to provide direction for this RLTP, along with other relevant statutory documents. In line with that direction, the ATAP process involved a detailed and extensive technical assessment of potential investment options and has provided a solid foundation for the development of this RLTP.

The agreed ATAP objectives, funding assumptions and investment programme underpin this RLTP.

The ATAP agreed objectives reflect the GPS and Auckland Plan.

This RLTP has been developed on the basis that the ATAP partners will continue to work together to realise the funding required to deliver the ATAP 2021 package, and make policy initiatives set out in the ATAP report. Specifically, that will mean making changes to the way current funding rules are applied. As discussed in later sections, this is critical to realising the full ATAP programme.

ATAP 2021, which has been agreed by Cabinet and Auckland Council, is seen as delivering the best possible outcomes, so long as it is accompanied by the policy changes identified in this RLTP.

The Auckland Plan 2050

The Auckland Plan 2050 is a long-term strategy for managing Auckland's growth and development over the next 30 years. It considers how we will address the key challenges of high population growth and environmental degradation, and how we can ensure shared prosperity for all Aucklanders.

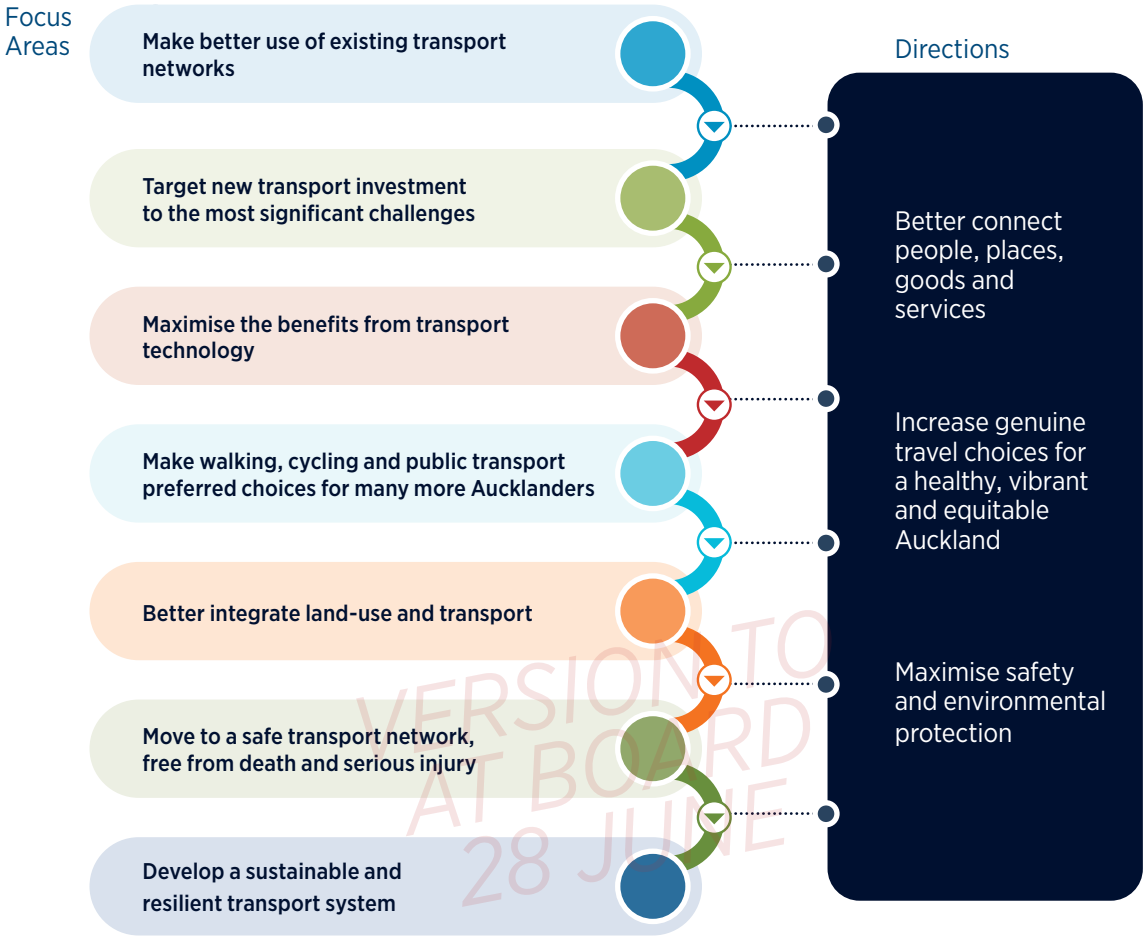
The first Auckland Plan was produced in 2012 and included a highly detailed series of objectives and targets. The Auckland Plan 2050, adopted in June 2018, is a more streamlined spatial plan with a simple structure and clear links between outcomes, directions (how to achieve the outcomes) and focus areas (how this can be done).

The plan aims to achieve the following outcomes:

- Belonging and participation
- Māori identity and wellbeing
- Homes and places
- Transport and access
- Environment and cultural heritage
- Opportunity and prosperity.

Transport contributes to achieving all six outcomes, with the strongest links to 'Transport and Access' (see below).

Aucklanders will be able to get where they want to go, more easily, safely and sustainably.



Purpose and scope cont.

Future Connect 2021-2031

Future Connect is a 10-year system planning tool for Auckland's integrated transport system. It sets out strategic networks for each transport mode, outlines the deficiencies and opportunities expected in the next decade, and identifies Indicative Focus Areas for further investigation as future projects. The Strategic Case summarises the challenges facing Auckland's transport system, objectives and performance measures.

Future Connect has been developed by AT in partnership with Waka Kotahi and Auckland Council in collaboration with Mana Whenua, and in consultation with MoT, KiwiRail and Kāinga Ora and major stakeholder groups such as the Freight Reference Group, Tāmaki Makaurau Road Safety Governance Group, Bike Auckland, NZ Automobile Association and Living Streets Aotearoa.

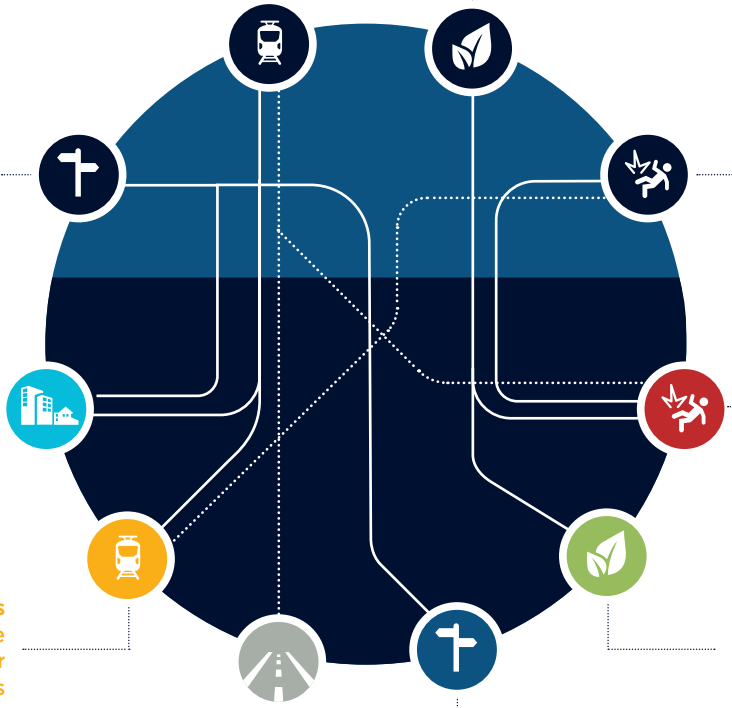
Problem statements

Travel options
A lack of competitive travel options and high car dependency as the city grows is limiting the ability to achieve the quality compact urban approach for Auckland

Climate change and the environment
Emissions and other consequences of transport are harming the environment and contributing to the transport system becoming increasingly susceptible to the impacts of climate change

Access and connectivity
Existing deficiencies in the transport system and an inability to keep pace with increasing travel demand is limiting improved and equitable access to employment and social opportunities

Safety
The transport system has become increasingly harmful and does not support better health outcomes



Growth
Enable and support Auckland's growth through a focus on intensification in brownfield areas and with some managed expansion into emerging greenfield areas

Safety
Make Auckland's transport system safe by eliminating harm to people

Travel choices
Provide and accelerate better travel choices for Aucklanders

Climate change and the environment
Improve the resilience and sustainability of the transport system and significantly reduce the GHG emissions it generates

Asset management
Sound management of transport assets

Access and connectivity
Better connect people, places, goods and services

Objectives

*Includes education, retail, recreation and community

Other relevant documents

The Land Transport Management Act 2003 sets out the planning, funding and operating framework for New Zealand's land transport infrastructure and services, including roading, public transport, the rail network and traffic safety.

The Government Policy Statement on land transport (GPS) sets out the government's NLTF expenditure priorities over the next 10 years. The GPS 2021-2031 is guided by four strategic priorities: Better Travel Options, Safety, Improving Freight Connections, and Climate Change.

It notes that providing and maintaining a transport system that will improve wellbeing and liveability requires coordination and investment by a number of different agencies and decisionmakers – both in central and local government. It also notes that a large proportion of land transport will continue to be focussed on maintaining the transport system at acceptable levels of service, taking account of the strategic priorities in GPS 2021. New investment (over this base) will be strongly driven by the strategic priorities, and four specific Government Commitments for GPS 2021, including ATAP.

The RTC must be satisfied that an RLTP contributes to the purpose of the LTMA 2003, which seeks an effective, efficient and safe land transport system in the public interest, and is consistent with the GPS.

The National Land Transport Programme (NLTP) is a three-year programme that sets out how Waka Kotahi invests land transport funding on behalf of the Crown to create a safer, more accessible, better connected and more resilient transport system.

The Regional Public Transport Plan (RPTP) sets out AT's policies, guidelines and activities for the delivery of Auckland public transport focused over a three-year period with a 10-year horizon.

The Auckland Long-Term Plan (LTP) underpins AT's RLTP programme by providing committed funding from Auckland Council and enabling AT to secure support from Waka Kotahi.

The Auckland Unitary Plan (AUP) seeks to help Auckland meet its economic and housing needs by determining what can be built and where, how to create a higher quality and more compact Auckland, how to provide for rural activities and how to maintain the marine environment. Of particular relevance for this RLTP are the objectives and policies for transport contained in the AUP.

Te Tāruke-ā-Tāwhiri: The Auckland Climate Plan sets a pathway to rapidly reduce GHG emissions (50 percent reduction by 2030) and helps prepare Auckland for the impacts of climate change. Transport is one of eight priorities, and road transport accounts for about 38.5 percent of Auckland's total emissions in 2018. Of particular relevance, are the seven transport actions and one built environment action involving AT as either one of the lead or implementation partners, which are set out in the Implementation Summary Table.

The Climate Change Response (Zero Carbon) Amendment Act 2019 provides a framework by which New Zealand can develop and implement clear and stable climate change policies that ensure New Zealand has net-zero GHG emissions by 2050 and prepare for and adapt to the effects of climate change.

Vision Zero for Tāmaki Makaurau is a transport safety strategy and action plan to eliminate DSI on Auckland's transport network by 2050. It is a partnership between AT, Auckland Council, NZ Police, Waka Kotahi, ACC, Auckland Regional Public Health Services and the MoT.

New Zealand Energy Efficiency and Conservation Strategy 2017-2022 seeks to have an energy productive and low emissions economy for New Zealand. It encourages businesses, individuals, and public sector agencies to take actions that will help us to unlock our renewable energy, and energy efficiency and productivity potential, to the benefit of all New Zealanders. The current strategy was put in place in 2017 and has three priority areas:

- Renewable and efficient use of process heat
- Efficient and low emissions transport
- Innovative and efficient use of electricity.

The target for efficient and low emissions transport in the strategy is for electric vehicles to make up two per cent of the vehicle fleet by the end of 2021.

The National Policy Statement on Urban Development 2020 (NPS-UD) seeks to ensure that new development capacity enabled by councils is of a form, and in locations, that meet the diverse needs of communities and encourage well-functioning, liveable urban environments.

The National Policy Statement for Freshwater Development 2021 seeks to ensure that natural and physical resources are managed in a way that prioritises first, the health and well-being of water bodies and freshwater ecosystems; second, the health needs of people (such as drinking water); and third, the ability of people and communities to provide for their social, economic, and cultural well-being, now and in the future.

Purpose and scope cont.

The (draft) NZ Rail Plan 2019 is a non-statutory planning document to guide investment in the rail system over the longer-term. It sets out the government's strategic vision and investment priorities and describes the changes made to the Land Transport Management Act to enable KiwiRail to access the NLTP. It also identifies the two investment priorities for a resilient and reliable network, both of which are relevant to Auckland: investing in the national rail network to restore rail freight and provide a platform for future investments for growth; and investing in metropolitan rail to support growth in our largest cities.

The Rail Network Investment Programme (RNIP) is a three-year investment programme and a 10-year forecast for the rail network, developed by KiwiRail. The draft NZ Rail Plan and the GPS guide the development of the RNIP, which needs to be reflected in the RLTP. The RNIP will be funded from the Rail Network activity class and the Public Transport Infrastructure activity class for metropolitan rail activities, supported by Crown funding.

Arataki 2020 is Waka Kotahi's 10-year view of what is needed to deliver the government's current priorities and long-term objectives for the land transport system.

The Auckland Freight Plan 2020 identifies the critical challenges for freight movement, desired outcomes, and includes an action plan to achieve them. It has been developed by AT in partnership with Auckland Council, Waka Kotahi and key freight stakeholders, including MoT, KiwiRail, Ports of Auckland, AIAL, the Automobile Association, the National Road Carriers Association, Mainfreight and the Road Transport Association NZ.

The AT Māori Responsiveness Plan (MRP) outlines operational-level actions to enable AT to fulfil its responsibilities under Te Tiriti o Waitangi – the Treaty of Waitangi – and its broader legal obligations in being more responsible and effective to Māori.

Auckland Council Local Board Plans are developed by the 21 local boards across Auckland. Each local board plan includes outcomes related to transport and specific actions the relevant local board wishes to see progressed.

05.
Transport funding

Over the last three years Auckland Council and central government have invested more in transport than ever before in an effort to address Auckland's infrastructure deficit.

Auckland faces significant challenges in funding its critical infrastructure, including its transport network. The city's population has grown on average by 1.8 percent annually over the past 10 years and is expected to increase a further 260,000 (1.5 percent each year) by 2031.

Growth at this level requires additional capacity on the transport network. Where the growth is in greenfield areas (future urban areas), new roads, new stations, public transport, walking and cycling infrastructure and new services are required. In brownfield areas (existing urban areas), population growth puts pressure on the roading network, adding to congestion, as well as creating capacity constraints on the public transport network. In addition, population growth increases the rate of deterioration of roads and other transport assets, which increases the cost of maintenance and renewals.

How transport is funded in Auckland

Transport activities in Auckland are traditionally funded by Auckland Council (rates, development contributions and debt), central government (through funding from the NLTF and other Crown allocations for rail projects including the CRL) and user pays service charges (e.g. parking fees and public transport fares).

The level of future transport investment required for Auckland to meet its strategic transport objectives has meant a need to move beyond these funding arrangements.

One significant new source of funding has been the Regional Fuel Tax (RFT). From 1 July 2018, a 10-cent per litre tax on petrol and diesel has applied in Auckland through the Land Transport Management (Regional Fuel Tax Scheme – Auckland) Order 2018. The collection of RFT allows Auckland Council to fund transport projects with positive economic, social, environmental and safety impacts.

By the end of January 2021, approximately $220 million of money collected through RFT had been invested in transport projects. Combined with other funding from Auckland Council and central government (such as Waka Kotahi's NLTF), RFT has enabled over $565 million in investments that would not otherwise have got underway, for example, the Downtown ferry terminal redevelopment, Puhinui Interchange and safety projects.

The timing of RFT collection does not align with when it is spent. This reflects the fact that at the time it was created RFT could only be applied to new projects (as opposed to projects already progressing), the need to secure additional matching funds (Auckland Council contribution and the NLTF) and the need to support a larger scale and pace of expenditure of many projects once they move into construction.

The following graph sets out the expected timing of collection and expenditure and the total transport investment enabled by RFT.

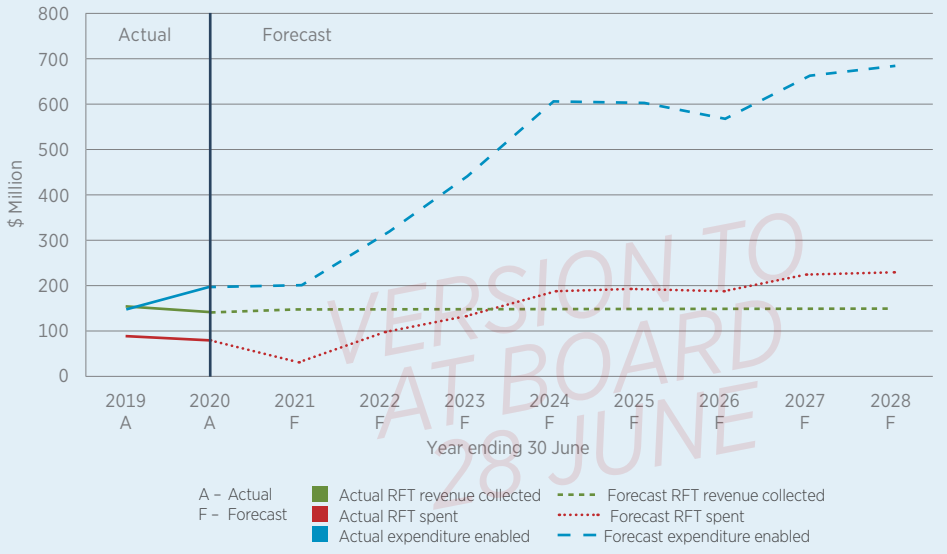
In January 2020, the government announced the New Zealand Upgrade Programme (NZUP), which included a $3.48 billion package of investments for Auckland that allows earlier delivery of already planned road, rail, public transport and walking and cycling infrastructure.

The NZUP programme was revised in June 2021, with the funding increased to around $4.3 billion and changes to the scope, cost and timing of these projects.

In July 2020 as part of its Covid response, the NZ government announced its 'Shovel Ready' initiatives, which provided funding for a number of transport projects that might otherwise have struggled to be completed (such as Puhinui Interchange and the Downtown Ferry Terminal) or be started quickly, creating jobs and benefitting the region. The Northwest Bus Improvements will see faster and more reliable bus services along SH16 with improved station and stop facilities at Westgate, Lincoln Road and Te Atatu.

The Government has also provided special purpose vehicles (SPVs) to allow funding of specific new growth-related projects, such as infrastructure for the Milldale development at Wainui. It's likely more of this funding approach will be required in the future.

RFT actual and forecast revenue and investment



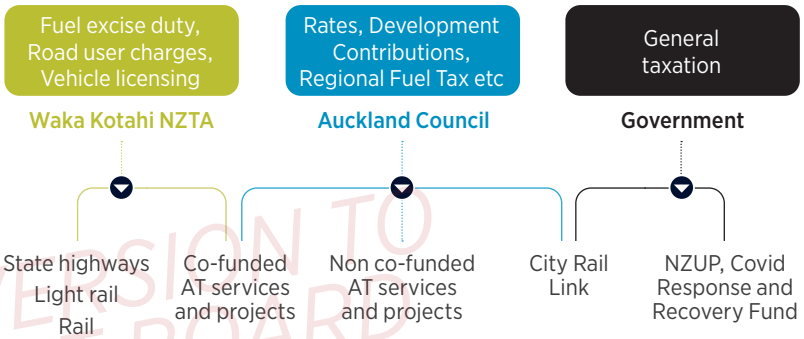
Transport funding cont.

Planned transport funding for Auckland

The ATAP 2021 Agreement between Auckland Council and the Government signals $31.4 billion of funding for a programme of specified transport investments in Auckland over the next 10 years, endorsed by Cabinet and Auckland Council. This is an increase of $3.4 billion when compared with that signalled in the 2018 RLTP. In June 2021, the government revised the NZUP programme with a further allocation of $800 million.

Another $4.8 billion of direct user pays fees, such as parking revenue and public transport fares, supports the investment being made in day-to-day transport services delivered by AT.

Funding sources by broad category



TRANSPORT FUNDING 2021-2031 (INCLUDING DIRECT USER CHARGES)	ATAP FUNDING
Auckland Council for AT Operations	$ 3.4 billion
Auckland Council for AT Capital	$ 5.5 billion
Auckland Council for CRL	$ 1.3 billion
National Land Transport Fund	$ 16.3 billion
Crown funding for CRL	$ 1.3 billion
Crown funded NZUP	$ 3.5 billion*
Crown funded COVID-19 Response and Recovery Fund	$ 0.1 billion
Subtotal: ATAP Agreed Funding	**$31.4 billion**
AT User Pays Fees (PT fares, parking fees)	$ 4.8 billion
Total Transport Funding 2021-2031	**$36.2 billion**

* This figure does not reflect the further $800 million allocation signalled by the Government in June 2021.

Consistent with the ATAP Agreement, the RLTP assumes that the NLTF will provide $16.3 billion between 2021 and 2031. The delivery of the programme in this RLTP depends on the availability of the funding set out in ATAP 2021 and critically, ensuring that it is allocated according to the agreed ATAP programme. This is most important for AT's elements of the ATAP/RLTP programme, which depends on financial assistance from Waka Kotahi.

ATAP has identified around $11.4 billion of capital projects that would be delivered by AT. Of these, AT considers that around $400 million relating to level crossings and school speed management should be fully funded from the NLTF, although the funding arrangements for these are not finalised. Implementation of the 'Community Connect' Public Transport Concession Card Trial will be fully funded by the Crown.

This leaves an AT capital programme of around $11 billion to be co-funded by Auckland Council and the NLTF. Auckland Council has committed $5.5 billion in its LTP giving an $11 billion envelope aligned to the ATAP assumptions. In practice, the matching co-funding from Waka Kotahi can vary, as individual projects are assessed for subsidy through a business case process. The share of AT's capital funding from the NLTF over the past three years has been less than the levels assumed in ATAP.

The ATAP Parties have agreed to re-examine the funding arrangements for AT, as without a change to these arrangements, AT will not be able to deliver the programme set out by ATAP and presented in this RLTP. However, changes take time to implement, and still may not achieve the level of co-funding assumed. We have decided, therefore, to present the implications of these different co-funding scenarios.

Depending on the funding scenarios above, we will prioritise according to the categories below.

Category One (Committed and Essential)

This scenario is based on the assumption that AT continues to receive the NLTP subsidy at past rates across its capital programme, historically around a 59:41 funding split between Auckland Council and the NLTF. This would provide a capital funding envelope for AT projects of around $9.3 billion which is $1.7 billion less than the preferred allocation to AT in the agreed ATAP programme.

Category One projects reflect the highest priorities and are included in the ATAP Recommended Programme's Committed and Essential category.

Category Two (Prioritised)

This scenario is based on the assumption that all AT eligible projects and programmes receive the full 51 percent NTLF financial assistance rate at the cost levels included in this RLTP. Historically, this has not always occurred. Under this scenario, the expected level of funding for AT's capital programme increases to around $10.4 billion.

Category Two projects reflect the second highest priority within the programme. RFT projects in Category Two will be the highest priority.

Category Three (Requires changes to current funding settings)

This scenario assumes that Waka Kotahi is able to use discretion within its funding rules to enable the full funding of the AT programme included in ATAP, for example, by applying a higher financial assistance rate for nationally significant rapid transit projects being delivered by AT (such as the Eastern Busway). Under this scenario, the expected level of funding for AT's programme would be $11 billion, plus projects funded fully from the NLTF, which is the same funding level that Auckland Council has assumed in its 2021 LTP.[5]

Category Three projects, although still very important, are the lowest priority in the programme, and will be the first to be deferred if assumed funding levels are not achieved.

Although changes to Waka Kotahi funding approaches are needed to deliver the total ATAP programme, including AT projects, the overall Waka Kotahi funding allocation remains within the $16.3 billion signalled for Auckland within the GPS.

As part of the ATAP Agreement, it is expected that the allocation to the Local Road Maintenance Activity Class in the 2024 GPS will need to be increased in the context of broader trade-offs and affordability. This is to ensure sufficient funding is available to cover the increase in renewals included within this programme.

Funding for operations

In addition to the above, there are challenges around the availability of operational funding. However, extra funding of $200 million has been included in the AT budget for bus and ferry services compared to the draft RLTP. Auckland Council has agreed an additional $50 million funding as part of its decisions on the final 2021 LTP, to be matched by an equivalent amount of funding made available by AT from operational savings, and co-funding from Waka Kotahi.

Other changes arising due to changes to Auckland Council's Long Term Plan

AT has also made changes to the phasing of its capital programme over the 10-year period. These changes arise due to an assessment of the deliverability of a large capital programme in the early years of the RLTP, as well as a re-phasing by Auckland Council of its capital funding to AT as part of its final 2021 LTP decisions.

[5] Although it is important to note that the funding level would be reached by some AT projects receiving a higher than normal financial assistance rate to compensate for projects that do not receive any subsidy. There is no expectation of a 50:50 funding subsidy on every project.

06.
Auckland's transport challenges

Auckland faces significant transport challenges now and into the future.

These reflect the region's substantial ongoing population growth, a challenging natural setting and historical approach to land use, along with a legacy of under-investment (particularly in public transport and cycling), ageing roads and transport facilities, and global threats like Covid-19 and climate change.

A key part of developing this RLTP has been the upfront effort that has gone into defining the problems that need to be solved.

FOUR KEY CHALLENGES HAVE BEEN IDENTIFIED:

Climate change and the environment – Emissions and other consequences of transport are harming the environment and contributing to the transport system becoming increasingly susceptible to the impacts of climate change

Travel options – A lack of competitive travel options and high car dependency as the city grows is limiting the ability to achieve the quality compact urban approach for Auckland

Safety – The transport system has become increasingly harmful and does not support better health outcomes

Access and connectivity – Existing deficiencies in the transport system and an inability to keep pace with increasing travel demand is limiting improved and equitable access to employment and social opportunities

Climate change and the environment

Emissions and other consequences of transport are harming the environment and contributing to the transport system becoming increasingly susceptible to the impacts of climate change

Climate change and GHG emissions

There is a growing global, national and local need to urgently address the threats posed by climate change through reducing GHG emissions. The scientific evidence is compelling. In New Zealand the Climate Change Response (Zero-Carbon) Act was enacted in 2019, which requires national GHG emissions to be net-zero[6] by 2050. In June 2019 Auckland Council declared a climate emergency, followed by the endorsement in July 2020 of Te Tāruke-ā-Tāwhiri: Auckland's Climate Plan.

Tackling climate change will require a very significant change to the way we travel around our region although the timing and the detail of how this change might unfold are still to become obvious.

Climate change targets

Development of the RLTP through ATAP occurred with a strong awareness of central government climate change legislation and Auckland Council climate change targets. Auckland Council – through its C40 obligations[7] and the Auckland Climate Plan – has committed to a 50 percent reduction in emissions by 2030, the amount required to keep the planet within 1.5°C of warming by 2100.

The Auckland Climate Action Plan outlines an indicative scenario of how that might be achieved (which assumes a 64 percent reduction in transport emissions) and a series of actions.

The Zero Carbon Act has a 2050 target of net-zero emissions. The Climate Change Commission 2021 Draft Advice for Consultation provides a 2030 target of reducing New Zealand's total emissions by 18 percent, which assumes a 19 percent reduction of transport emissions.

Auckland's emissions and road transport

The scale of the challenge presented by achieving either the Auckland Council or legislative targets is large and in Auckland the challenge is far greater than the scale of the change required for the rest of New Zealand. In 2018, Auckland's total emissions were 11,500 kilo-tonnes, which is around 15 percent of New Zealand's total emissions. Auckland's road transport is around 5.5 percent of New Zealands total emissions.

Road transport has consistently been Auckland's largest single source of GHG emissions at 38.5 percent in 2018. The overwhelming majority of these emissions (80 percent) come from private motor vehicles and light commercial vehicles. Heavy vehicles (or freight and buses) account for 20 percent of land transport emissions.

Given the scale of Auckland's contribution to New Zealand's transport emissions, failure to make substantial emissions reductions in Auckland will severely limit New Zealand's ability to meet it's climate change targets.

2030 Climate targets

DOCUMENT	TARGET FOR	TARGET EMISSION REDUCTION		REDUCTION RELATIVE TO....
		ALL	TRANSPORT SCENARIO	
Te Tāruke-ā-Tāwhiri: Auckland's Climate Plan	Auckland	– 50%	– 64%	2016
Climate Change Commission 2021 Draft Advice for Consultation	New Zealand	– 18%	– 19%	2018

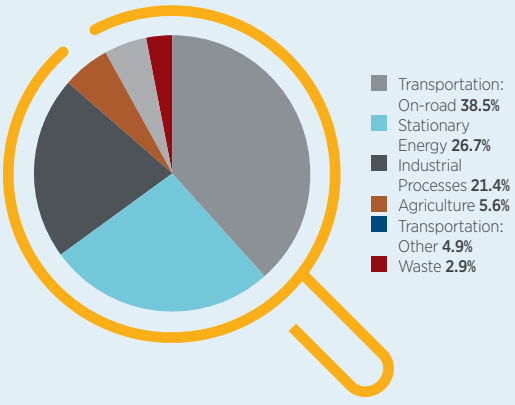
[6] Net zero emissions, also known as "carbon neutrality", is where the all GHG emissions produced by an entity (such as a country, city, or organisation) are fully sequestered or absorbed (typically by trees). That is, the amount emitted equals the amount absorbed.
[7] C40 is a network of the world's mega-cities committed to addressing climate change.

Auckland's transport challenges cont.

Auckland's total GHG and road transport emissions grew seven percent and 11 percent respectively between 2009 and 2018. These increases occurred over a period when public transport ridership increased by 75 percent. However a combination of the number of trips made and the length of the trips meant that the Vehicle Kilometres Travelled (VKT) by private motor vehicles, light commercial vehicles and heavy vehicles also increased by 28 percent (2009 to 2019).

Essentially, increased demand for travel around the region (generated by an increased population and improved economic growth) has more than off-set vehicle fleet efficiency improvements and increasing per capita public transport patronage.

Auckland's GHG emissions by sector, 2018[8]



What drives transport emissions?

Understanding the transport emission challenge

Road transport emissions are driven by two key factors:

Vehicle Kilometres Travelled (VKT)
x average vehicle CO_2e per km
= Total CO_2e

In simple terms this can also be described as 'the length and number of trips we make in vehicles multiplied by the average carbon emissions of Auckland's private and public vehicle fleet'.

The amount of kilometres travelled in vehicles is primarily driven by the demand for private vehicle travel, which is in turn influenced by the attractiveness of travel alternatives, trip purpose and length.

Vehicle emissions are influenced by the overall make-up and efficiency of the vehicle fleet (in terms of fossil fuel consumption), the type of fuel being used (diesel emits more than petrol) and travel speed.

Critically, as the amount of kilometres we travel in vehicles is one of the two key factors in emissions, it is total distance travelled on a weekly or (more accurately) annual basis that is key.

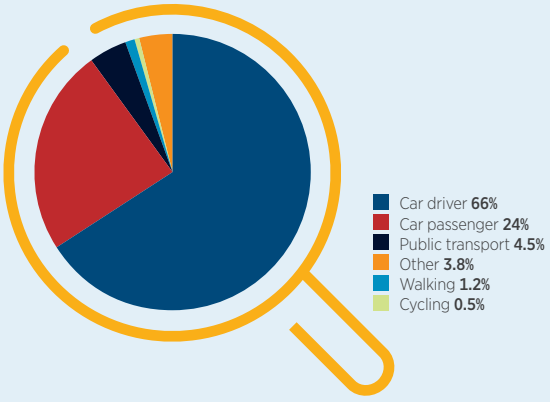
The proportion of distance travelled in private vehicles on a weekly basis (around 90 percent) is significantly higher than what we see during the traditional peak period journey to work commute. This is because trips outside peak periods are for a different purpose. They are often social, business and personal trips, are more distributed, generally involve multiple locations, passengers or moving goods, and on average, are longer. They are also less affected by congestion or parking and are harder to serve with public transport.

[8] Source: Xie, S (2019). Auckland's GHG inventory to 2016. Auckland Council technical report, TR2019/002.

This means that the traditional transport planning, investment and monitoring focus on peak period trips (typically with congestion in mind) must be broadened to tackle distance travelled across the day and week and year.

It's estimated the proportion of kilometres travelled in the non-peak periods make up 67 percent of all kilometres travelled on the Auckland roading network.

Share of weekly travel distance by mode
(Household Travel Survey)



Looking forward

Without action, population growth will drive up emissions

Reducing transport GHGs by reducing the weekly distance travelled by private vehicles in Auckland is extremely challenging. The projected reductions that can be achieved by investing in infrastructure and services alone are very modest due to the difficulty in encouraging changes in the way Aucklanders travel outside peak periods.

Auckland's population growth will continue, making the hill that needs to be climbed much steeper: our population is forecast to increase by 22 percent between 2016 and 2031, and we can expect a similar increase in private vehicle travel and therefore emissions.

Signficantly reducing transport GHGs will require investment in projects, programmes and services that encourage Aucklanders to switch to sustainable travel modes and reduce the increase in private vehicle travel associated with population growth. However, at best, an investment-only approach could only hope to hold private vehicle travel to today's levels, leaving the problem of existing travel and emissions.

Consequently, to achieve significant reductions in Auckland's transport GHG emissions, we must also implement measures that move the private vehicle fleet towards low or zero emissions options as it is renewed. Unfortunately, current projections for 'decarbonising' the average private vehicle owned by New Zealanders do not see significant reductions in GHG emissions until 2035. Without some catalyst for change, the impacts of decarbonisation will take time to generate results, so additional measures must be introduced more rapidly if significant GHG emission reductions are to be achieved by 2030.

Auckland's transport challenges cont.

Climate change impacts on the transport system

In addition to reducing emissions, Auckland needs to focus on managing the current and future impacts of climate change on the transport network. Climate changes are expected to generate sea level rises, more frequent and intense storms and longer, hotter, dry periods. Significant investment will be required to ensure the network remains resilient and adaptable as these changes are magnified.

Roughly five percent of Auckland's road and rail strategic networks are found in areas susceptible to coastal inundation, including parts of the state highway network which are crucial links for freight movements and access to key regional destinations.

Over 1,000km (or about 13 percent) of AT's local road network has recently been identified as vulnerable to a 1-in-100 year flood event. AT is currently identifying and prioritising the risks of climate change to the transport system (assets, services, customers and staff) to permit a more strategic approach to designing and managing our assets in the future.

AT has raised the height of the Tāmaki Drive seawall to improve resilience to sea level rises

Heat stress and drought increasingly impact the transport network with melted bitumen, low soil moisture content affecting street trees and buckling railway tracks that slow train travel.

In addition, the increasing frequency and severity of rain events is also causing damage to Auckland's transport infrastructure by creating slips, flooding road corridors and impacting seawalls that require expensive remediation, further increasing the likelihood of service disruptions.

Climate change adaptation looks at how the region's transport network can be designed and built to provide greater resilience. Changes include more green infrastructure, using natural systems to provide shade, and improved connections to stormwater.

Lifting the lower lying sections of Tāmaki Drive is an example of the work AT is currently doing in response to climate change.

Contaminants, stormwater and ecosystems

As Auckland grows, so does the impact on the environment that we live in. We need to provide infrastructure and services that reduce our impact on the environment and conserve and enhance it for future generations.

Protecting, improving, enhancing and restoring the mauri of our harbours and streams will improve the quality of life for all Aucklanders. Opportunities for green infrastructure to be incorporated into the road network include rain gardens to filter road runoff before it discharges to the harbour, and trees to provide shade, reduce runoff volumes and provide habitat and pollination pathways for insects and wildlife.

"My local bus connects with the Northern Express and gets me to work faster than my car. It's cheaper, easier and better for the planet."

Maree, North Shore

Auckland's transport challenges cont.

Travel options

A lack of competitive travel options and high car dependency as the city grows, is limiting the ability to achieve the quality compact urban approach for Auckland

Public transport

The public transport network has transformed since its low point in the 1990s, but more is needed to deliver the requirements of Auckland's transport strategy and achieve a quality compact urban form. The network effectively supports the city centre and fringe, enabling this area to grow without an increase in peak period car travel.

Outside of the central area (which only accounts for around a quarter of employment), public transport attracts a lower share of commuting trips, even after an extensive reorganisation of the bus network to improve frequency, reliability and coverage. Following the roll out of the New Bus Network, approximately 39 percent of Aucklanders currently served by public transport live within 500 metres of a rapid or frequent public transport stop.

The RTN is the part of the network most likely to act as a catalyst for more intensified development. However, it is currently limited to the rail network and Northern Busway, which provides walk-up access for just over 300,000 Aucklanders. Although there is evidence of greater housing intensification around the RTN (which will be enhanced by changes to land use regulation) it is not enough to carry compact city objectives on its own.

Much of Auckland's public transport network is simply not fast enough to compete with private car travel, even during the peak periods. This is particularly the case for much of the frequent bus network, which operates on the same congested roads as general traffic.

At present, Aucklanders can access around three times as many job opportunities within 30 minutes by car as they can by public transport in 45 minutes. Between 2013 and 2018 around 60 percent of Auckland's growth in commuting trips, and 50 percent of its employment growth, occurred in outer urban communities which are heavily reliant on private vehicles.

Looking forward

Public transport needs to be faster and more reliable if it is to absorb a greater share of future trips and act as a catalyst for intensive development in centres, and rapid and frequent services need to extend more widely across the region.

For the public transport network to fulfil its role, further investment is required to:

- Continue improving the public transport customer experience making it simpler and easier to use
- Continue to serve the growth of the city centre as an employment destination
- Extend the catchment of the RTN across Auckland's urban area and developing greenfield areas
- Effectively serve a wider range of key destinations beyond the city centre
- Improve the coverage of the FTN by increasing investment in services
- Increase the speed and reliability of bus services by moving more of them into dedicated bus and transit lanes, separated from general traffic
- Continue improving the resilience and reliability of the rail network through the catch-up renewal programmes
- Replace ageing ferries required to deliver existing ferry services.

Active transport

There is significant potential for walking and cycling to play a much greater role in meeting Auckland's transport needs. Past urban development patterns and a lack of investment in safe environments or facilities has created barriers to Aucklanders walking and cycling more.

A very small proportion of people have access to a completed cycling network that will take them safely and comfortably to their destination. Investment has been made in recent years to extend the Auckland cycle network, however progress has been slower than anticipated. Nevertheless, there have been significant increases in trips taken by bike associated with the opening of new and improved facilities. Auckland's highest monthly total of recorded cycling trips was recorded in February 2020, just prior to the Covid-19 lockdown.

The emergence of e-bikes and micromobility is rapidly making active transport more attractive to people who previously may not have considered it a viable mode. The distances people are able to travel is about 50 percent more than on a normal bike or scooter, and the travel time is reduced. Shared micro-mobility devices can increase the range of the public transport network as many people utilise shared mobility for first and last leg journeys to public transport.

Walking also has the potential to play a much greater role in how Aucklanders move around the region, in particular for shorter journeys by people who live close to the city, near public transport, for trips to and from schools, and within local neighbourhoods. However the time taken, and the quality of the pedestrian environment, is a key barrier to increasing the number of walking trips.

Looking forward

For active transport to increase across Auckland, further investment is required to:

- Continue the delivery of the Urban Cycleways Programme to progress development of the cycle network
- Deliver cycleways in areas associated with the Cycling Investment Programme
- Deliver important travel behaviour change programmes such as safe schools and Travelwise to encourage more people to use active transport
- Continue to develop and improve safe cycling infrastructure on the cycle and micromobility strategic network
- Increase the comfort and safety of people on bikes across the wider transport system
- Make some historical cycling infrastructure fit-for-purpose and consistent with customer requirements.

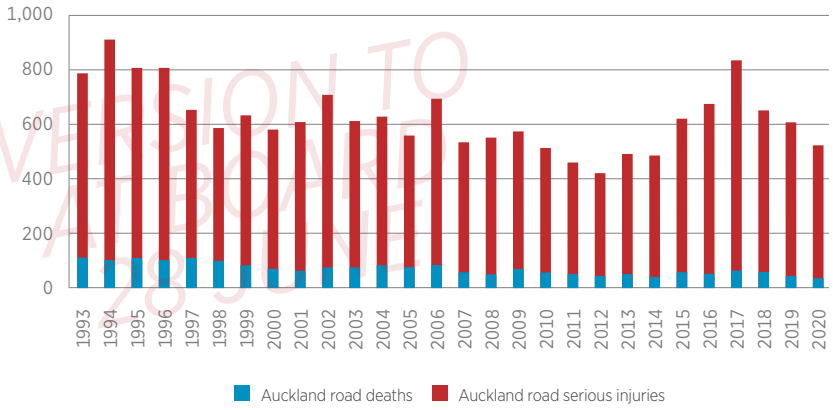
Auckland's transport challenges cont.

Safety

The transport system has become increasingly harmful and does not support better health outcomes

The transport system has the potential to cause both direct and indirect harm to the people of Auckland. The most direct form of harm is through death and serious injuries because of a crash. However, there are also a number of indirect ways in which the transport system impacts on human health. These include harm caused by air and noise pollution originating from the transport system, and chronic health issues which are exacerbated by a transport system that has historically been designed to prioritise car travel.

Auckland Death and Serious Injuries 1993-2020



Death and Serious Injuries

Auckland has the highest rate of DSI per kilometre of road when compared to all other New Zealand regions.

While DSI on the Auckland road network had generally declined over recent decades, this trend reversed in 2013 and there was an alarming increase in road trauma between 2013 and 2017.

In response, a significantly enhanced and accelerated safety programme was provided for in the 2018 RLTP, and Auckland adopted the Vision Zero for Tāmaki Makaurau Transport Safety Strategy in 2019.

Auckland's Vision Zero goal is to have no DSI on the transport system by 2050. This approach puts people first, and recognises that humans are vulnerable and will make mistakes. The transport system needs to ensure that when those mistakes happen, no-one is killed or seriously injured.

Good progress has been made since 2017, with the increasing trend in DSI stopped and numbers dropping from the peak of over 800 DSI in 2017, to 525 in 2020. While this recent trend is encouraging, the results are still significantly above Auckland's Vision Zero goal. In addition, we have since seen a significant upturn in DSI following the second Covid-19 lockdown in August 2020.

The following table shows the key contributing causes of DSI, and death only, on the Auckland network.[9]

IMPORTANCE OF CONTRIBUTING CAUSE	DEATH AND SERIOUS INJURIES (DSI)	DEATHS
1st	Excess speed (22.2%)	Alcohol/other drugs (38.6%)
2nd	Alcohol/other drugs (18.5%)	Excess speed (36%)
3rd	Distraction (7.7%)	Non-restraint (seatbelt) use (23.3%)
4th	Non-restraint (seatbelt) use (6.1%)	Distraction (6%)

The above analysis highlights the importance of road safety education, ensuring speed limits on Auckland's roads are safe and appropriate, and that there is compliance and enforcement with respect to alcohol and drugs, speed, and the wearing of seat belt restraints.

[9] Drawn from Waka Kotahi Crash Analysis System data: Five-year average 2015-2019

Air and noise pollution

The transport system is a significant contributor of harmful emissions, such as nitrogen oxides (NOx) and airborne particulate matter (fine particles in exhausts).

Vehicle emissions are the largest contributors to poor air quality in Auckland. Human-made airborne particulate matter is associated with premature deaths, cardiac hospitalisations, respiratory hospitalisations and time away from work.

As the ageing vehicle fleet in Auckland is replaced with newer vehicles, the emissions from exhausts are reduced and air quality is improved. The introduction of EVs, particularly heavy vehicles like electric buses and trains, contribute significantly to improving the quality of the air we breathe along our busy roads and streets.

The transport system also creates significant levels of noise pollution, in particular for properties closest to state highway and arterial networks. Negative effects of noise pollution on humans include sleep disturbance, cardiovascular and physiological effects, mental health, and adverse impacts on the ability to perform cognitive tasks and memory.

Human health

An unsafe transport system limits the range of realistic travel options available to Aucklanders. With insufficient physical activity being a key risk factor for conditions such as cardiovascular disease, cancer and diabetes, removing barriers to walking and cycling provides a genuine opportunity to support Aucklanders to living longer and healthier lives.

Auckland's transport challenges cont.

Access and connectivity

Existing deficiencies in the transport system and an inability to keep pace with increasing travel demand is limiting improved and equitable access to employment and social opportunities

Auckland has enjoyed a period of major investment in its public transport and motorway networks since 2005.

The public transport network has been transformed with increased public transport frequency across key corridors, the completion of the Northern Busway, the upgrade of trains, double tracking of the western rail line, investment in rail stations and electrification of the rail network. The bus network has been successfully re-organised with a significant increase in services using a modern bus fleet.

It's now easier to use buses, trains and ferries with the AT HOP Card (used for approximately 95 percent of all trips on public transport in 2019) and the AT Mobile app (used regularly by over 300,000 Aucklanders in 2019). Access and payment for AT's parking facilities has been simplified using the AT Park app.

The capacity of the motorway network and its connections have substantially increased, with improvements made to the central motorway junction, the completion of the western ring route including the Waterview Connection, improved access to the Auckland airport precinct and widening of the southern motorway.

Making it easier for Aucklanders to use multiple transport modes to complete a trip – in cars and bus, car and train, bike and bus, or bike and train – is also important. As a result there are now just over 6,000 car parks at park and ride sites (10 percent added in the last three years), and more bike facilities at public transport interchanges and in off-street car parks (such as in the Toka Puia car park in Takapuna). More of these improvements are planned at targeted locations across Tāmaki Makaurau.

As a result of these initiatives, there has been a renaissance in public transport with annual boardings reaching 103 million by November 2019 (before the impacts of Covid-19). More recently, an investment in cycleways has led to a rapid increase in the number of people on bikes in areas where safe infrastructure is available.

However, strong population growth, particularly from around 2013, has continued to put pressure on Auckland's transport network. This growth, combined with positive economic conditions, saw a major increase in per-capita car ownership, and the distance travelled by Auckland's private motor vehicle fleet, continuing to 2019. There has been an increase in congestion in both the peak and interpeak periods that was only eased with the opening of the Waterview Connection and SH16 improvements in 2017. Since then, congestion has held relatively steady at a regional level.

Substantial parts of the strategic bus and road networks are heavily congested, which impacts the everyday travel of public transport customers, and also for freight operators, who report worsening conditions impacting their business.

"As someone who takes the train all the way from Pukekohe to the city, I can't wait for the Pukekohe to Papakura part of the line to be electrified. This will make my journey so much easier... I won't need to change trains at Papakura and the journey will be a lot more convenient. I like to have the laptop out while I'm travelling, so being able to stay on the same train all the way to work will make a huge difference."

Natalie, Pukekohe

Auckland's transport challenges cont.

The following figures show deficiencies in travel time reliability of buses and general traffic.

Current deficiency on the bus network
Indicator: Bus travel time reliability LOS (AM peak)
High LOS F
Moderate LOS E

Current deficiency on the general traffic network
Indicator: Traffic travel time reliability LOS (AM peak)
High LOS F
Moderate LOS E

Looking forward

Auckland's population growth is projected to continue at a similar rate for the next 30 years. This presents the opportunity to harness benefits of scale as the region develops and becomes more compact, and public transport becomes faster, has increasing geographic coverage and becomes more competitive.

Meanwhile, the number of jobs able to be accessed within a reasonable travel time by private vehicle will remain critical to Auckland's economy, particularly for those parts of Auckland where people are dependent on vehicles.

Greater equity in access to opportunities is also important if the benefits of growth are to be spread more evenly across Auckland.

Access to the transport network goes beyond how close transport services or facilities are to a person's home or place of work. Access is also about how affordable the transport choices are that Aucklanders have.

To achieve the benefits of scale, Auckland's transport strategy to avoid congestion increasing is to absorb future growth in travel demand by improving the public transport and active mode networks and encouraging more Aucklanders to change the way they travel. Targeted improvements to the road network to address key small-scale choke points also need to be delivered.

Without these improvements, changes in travel behaviour will not occur, congestion will increase, inequitable access to jobs and education will remain embedded, and Auckland will not see the full benefits of its ongoing growth.

Accommodating growth

Over 1.7 million people now call Auckland home, and the region is forecast to grow substantially in the coming decades, exacerbating housing shortages.

The Auckland Plan 2050 provides Auckland's 30-year development strategy, which shows that Auckland will grow through a combination of 'brownfields' (building up) infill development and 'greenfields' (building out) future urban areas.

Auckland Council and central government have identified a number of spatial priority areas where they expect concentrated growth to occur. As these large developments will concentrate demand, specific transport infrastructure is required to support sustainable travel outcomes and minimise the effects of congestion.

Supporting spatial priority areas requires both public and private investment. Generally speaking, the local private infrastructure required for growth is delivered by developers, for example, new local roads and footpaths inside subdivisions. Accompanying public investment can take the form of wider network improvements, (e.g. arterial upgrades) and the delivery of complementary public transport, walking and cycling networks. This last set of initiatives is important, as it enables growth to occur in a way that does not create future car-dependent communities.

Maintaining and renewing the network

AT is the regional guardian of $21.1 billion of publicly-owned assets. This includes 7,638km of arterial and local roads, 7,431km of footpaths, 348km of cycleways, a growing fleet of electric trains, rail and busway stations, bus shelters, ferry wharves and two airfields on the Gulf Islands. In addition, Waka Kotahi manages transport assets valued at around $15.9 billion which includes state highways, bridges, road tunnels and other structures.

Maintaining and renewing these assets is a significant undertaking. The temporary closure of the Auckland Harbour Bridge last year (due to an accident caused by freak wind gusts) and ongoing issues encountered with the rail network clearly demonstrate the importance of ensuring the resilience and reliability of our infrastructure.

Since the 2018 RLTP, a number of factors have placed increased pressure on the local road and asset network:

- Auckland's increasing population and demand for travel, leading to faster deterioration of road pavements
- Increasing numbers of heavy vehicles operating on the network including growth-related construction, service-related (e.g. waste collection) traffic and heavier axle weights from double decker buses
- An increasing local network asset base, which is growing by around 1.5 percent every year through the delivery of new transport infrastructure (e.g. roads in new subdivisions, new transport facilities)
- Significant increases in construction costs and the cost of renewals, in particular road rehabilitation which makes up the largest share of AT's renewal spend
- Low renewal expenditure over the 2018-2021 period (including due to budget impacts from Covid-19) which has created a renewal backlog
- Increased renewal requirements relating to climate resilience, seismic retrofit and slip remediation.

Without action to address the impact of these factors, the local network asset base will fall below standard leading to increased reliability issues and higher costs to resolve over the long-term.

07.

Responding to Auckland's transport challenges

The pathway forward

This section describes the transport programme to respond to the challenges outlined in the previous section.

Travel choices – Provide and accelerate better travel choices for Aucklanders

Climate change and the environment – Improve the resilience and sustainability of the transport system and significantly reduce the GHG emissions it generates

Access and connectivity – Better connect people, places, goods and services

Safety – Make Auckland's transport system safe by eliminating harm to people

Growth – Enable and support Auckland's growth through a focus on intensification in brownfield areas and with some managed expansion into emerging greenfield areas

Asset management – Sound management of transport assets

Other items – Local Board programmes, technology and organisational improvement initiatives

The responses reflect the direction set out in ATAP approved by central government (Cabinet) and Auckland Council (Planning Committee).

The programme is built off the landmark programme included in the 2018 RLTP. Most of the 2018 investment programme remain, which is expected noting that we are in year three of the 10-year investment programme.

A significant amount of the total RLTP programme is required to keep the existing transport network functioning effectively, renew the existing asset base, and complete committed and essential capital works.

This RLTP is focussed on completing transport projects that are already underway (such as the Eastern Busway), investing in new electric trains and infrastructure to meet the expected patronage boost from the $4.4 billion CRL, and maintaining momentum on core priorities like reducing DSI on the transport network.

Committed and essential items account for over 90 percent of the $31.4 billion programme presented in this RLTP. They include $3.5 billion government-nominated and funded upgrade projects in the NZUP, and a further $1.8 billion of government seed funding for the city centre to Mangere (CC2M) and northwest rapid transit projects.

This leaves $2.1 billon over 10 years – less than 10 percent of the programme for new investments. This is applied to further address the issues of existing congestion, encourage alternative modes, ensure equity of access, provide infrastructure for growth, complement other climate change policies, and respond the requirements of local communities.

Twenty billion dollars of potential projects and initiatives competed for the allocation of the remaining 'discretionary' funding. Prioritisation of projects and initiatives was done using a range of inputs and utilising different methods, including:

- Future Connect assessments
- The Portfolio Investment Approach tool (PIA)
- The Urban Growth Assessment Framework
- Business case and project information and advice
- Assessment and advice from AT, Waka Kotahi and KiwiRail on a number of programmes and projects
- Information on the Auckland Housing Programme.

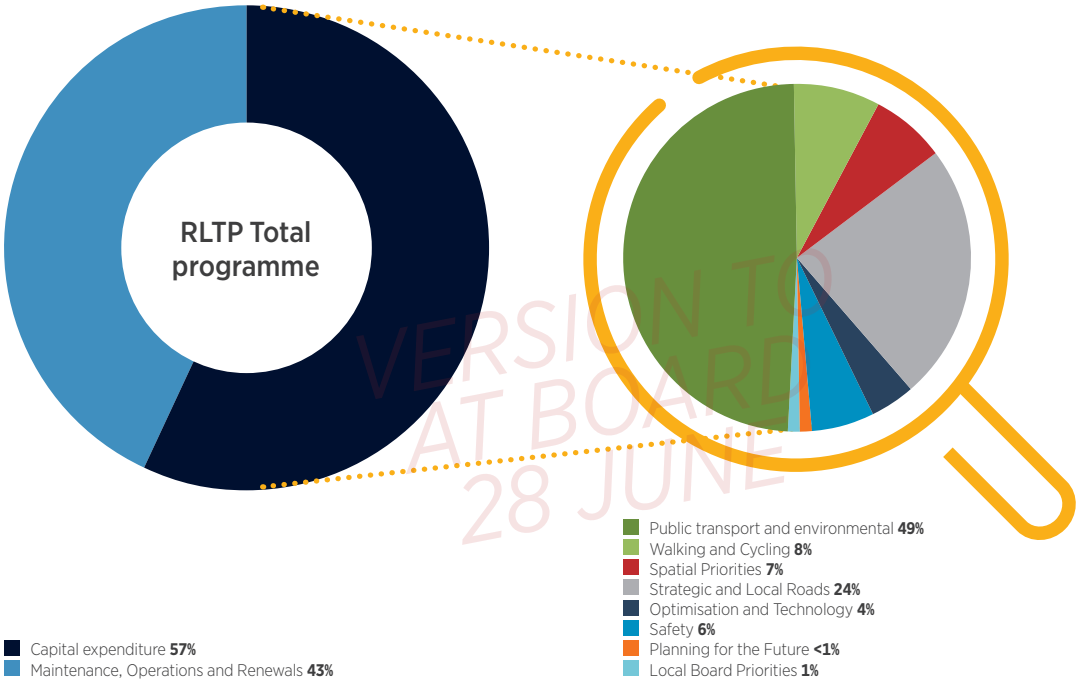
A short-list of prospective projects was evaluated using the PIA tool. These projects included existing projects not categorised as committed or essential, and new projects. The evaluation was based on Future Connect problem statements and ATAP objectives.

Multiple options or packages of investment were then developed to illustrate potential investment choices and trade-offs based on the ATAP objectives. The different packages are based on:

- a climate change option,
- a spatial response,
- a modeshift (PT) focused response,
- a modeshift (active modes) focused response,
- a Drury-focused response, and
- two blended packages.

Each option has the same base programme which accounts for $29.3 billion of the $31.4 billion funding available. The alternative package options focus on the potential investment choices and trade-offs for the $2.1 billion of discretionary funds. Not surprisingly, given the limited amount of discretionary funding, there was limited difference between the packages.

The programme presented here is heavily weighted towards core expenditure on the maintenance and renewal of existing transport assets and to public transport services and other operating items. Together these make up around 43 percent ($13.7 billion) of the total programme. Of the remaining investment in new projects and programmes, the focus is on public transport and active modes, which make up around 57 percent of the remaining package.



A full listing of the proposed programmes and projects, organised by delivery organisation, is provided in the Appendices.

Responding to Auckland's transport challenges cont.

The proposed programme will enable significant progress and contribute to making Auckland an even better place to live. However, even with a programme of this scale – a record level of funding - Auckland's transport challenges will not be solved in 10 years. Quite aside from funding, issues such as construction industry capacity and the community's tolerance for much greater levels of construction are likely to limit what is required to be delivered over the next 25 years.

The need for policy change

For Auckland to successfully meet its challenges and realise its full potential over the longer term, investment in infrastructure and services must run alongside some significant policy and regulatory changes. This RLTP includes a number of policy responses, many of which require significant advocacy from Auckland to progress. These are discussed in more detail as part of an integrated approach in Section 8.

Policy responses proposed by the 2021 RLTP

OBJECTIVES	POLICY RESPONSE
Improve the resilience and sustainability of the transport system and significantly reduce the GHG emissions it generates	Accelerate EV uptake with purchase incentives
	Change current road pricing mechanisms to better manage travel demand
	Motor fuel taxes (including the Emissions Trading Scheme)
	Greater use of biofuels for powering vehicles and vessels
	Improve vehicle fuel efficiency standards
	Employee remote working
	Remove the Fringe Benefit Tax (FBT) for public transport subsidies made by employers for employees
Provide and accelerate better travel choices for Aucklanders	Implement 'Community Connect' (Public Transport Concession Card Trial) which provides a 50 percent discount on public transport fares for Community Services Card holders
	Increase discounts for interpeak fares on eligible bus, train and ferry services
	Continue to offer the 'Child Fare Free Weekend' initiative on eligible bus, train and ferry services
Make Auckland's transport system safe by eliminating harm to people	Higher penalties for speed, distraction, impairment and restraint offences
	Enhance enforcement of drug driving
	Improve the safety of heavy vehicles for vunerable road users
	Introduce alco-locks for drink-driving offenders
	Ongoing implementation of speed limit reviews on high risk roads to ensure they are safe and appropriate
Better connect people, places, goods and services	Continue to develop an alternative road pricing scheme encompassing demand management to allow for more productive use of the roading network
	Continue to roll out automated enforcement of transit and bus lanes to ensure higher network productivity and improved safety
	Continue to roll out residential parking schemes in relevant suburbs
Enable and support Auckland's growth through a focus on intensification in brownfield areas and with some managed expansion into greenfield areas	Increase urban density and provide new funding tools

Travel choices

Provide and accelerate better travel choices for Aucklanders

The 2021 RLTP focuses strongly on providing Aucklanders with better travel choices to enable more sustainable and economically productive transport options. The goal is to reduce the number of single occupant vehicles, and particularly single occupant 'fossil-fuel' powered vehicles on our roads.

In the first half of the decade, extensions of the existing rapid transit network will be completed along with the CRL, a critical link in the existing rapid transit network. Significant improvements will be delivered to other parts of the rail network and the Urban Cycleways Programme will be completed.

By the end of the decade there will also be ongoing improvements to the underlying bus and ferry networks, separation of key FTN bus routes from general traffic lanes with a network of whole-of-route bus and transit lanes, and expansions and improvements to walking and safe cycling infrastructure across the region.

Rapid transit extensions

The RTN is a key investment priority and forms the largest category of capital investment in this RLTP.

Running free of congestion in dedicated lanes or corridors as much as possible, the RTN offers high capacity, high frequency services that are often faster than comparable private vehicle trips. The advantages offered, particularly in terms of access to the city centre and fringe, also make the RTN a key component when supporting the compact city strategy by encouraging high-quality intensive development alongside the network.

The transport programme in this RLTP will deliver a step-change in the coverage and performance of the RTN over the next 10 years. This RLTP will also see the RTN continue to diversify away from the city centre, providing high quality links to other key Auckland centres such as Botany, Pakuranga, Pukekohe, Drury, Albany, and Westgate.

Significant projects include:

- **Light rail:** Seed funding to progress new rapid transit lines from the city centre to Mt Roskill and Mangere (CC2M) and along the northwest corridor. In the near-term this project will focus on investigation, design, route protection and other pre-implementation activities.

  The 2021 RLTP does not include completion of full light rail links from the city centre to Māngere and Auckland Airport, or to the northwest (as assumed in the 2018 RLTP). This reflects a revised view of the 'additional funding sources' that were assumed to be available for these projects in 2018.

- **Eastern Busway:** Completion of the Eastern Busway, providing a new rapid transit connection from Panmure to Pakuranga and Botany. This includes the Reeves Road flyover and new bus interchanges at Pakuranga and Botany. This project will improve travel choices by making public transport, walking and cycling realistic and safe options, and improve connections within the area and to the rest of Auckland.

  The Eastern Busway is expected to carry more than 30,000 people per day between the rapidly growing south-eastern suburbs and the rail network in Panmure. This project will make journeys faster and more convenient, reducing travel time between Botany and Britomart. It will also help reduce traffic congestion and vehicle emissions.

- **Northern Busway** (part of Northern Corridor Improvements): The Northern Busway is currently being extended northwards to Albany with a new Rosedale Station added between Constellation and Albany Stations. This project will reduce journey times and improve bus reliability, with the Rosedale Station improving busway accessibility and reducing pressure on the existing Constellation and Albany Stations.

- **Northern Busway Enhancements:** A further $62 million has been provided to deliver other improvements that enhance the capacity of the Northern Busway to meet current and projected demand (e.g. improvements at stations to increase the throughput and flow of buses).

PROJECT NAME	RESPONSIBLE AGENCY	TEN 10-YEAR CAPITAL EXPENDITURE ($MILLION)
City Centre to Mangere & Northwest Rapid Transit (CC2M)	Waka Kotahi	1,800
Eastern Busway	AT	874
Northern Busway Enhancements	AT	62
Rosedale and Constellation Bus Stations	AT	59
SH18 Rapid Transit	Waka Kotahi	3

Responding to Auckland's transport challenges cont.

Rail network improvements

Auckland's rail network forms a key part of the city's rapid transit and freight networks. Recent investments in rail have resulted in substantial growth in rail passenger boardings, which reached 21.9 million trips in 2019 (before Covid-19 started to impact public transport use).

The rail network also plays an important role in the movement of freight, especially to and from the Ports of Auckland and Port of Tauranga. However, a step-change in use for freight and passenger rail needs over the last decade has also resulted in increased wear on the track. During 2020, KiwiRail started a significant track replacement programme which included temporary track closures and speed restrictions.

This RLTP will see a radical improvement in the performance and capacity of the rail network, particularly for accessing new areas of the city centre and fringe as the CRL comes into service in 2024. A key priority has been ensuring that the full suite of projects necessary to support the CRL is available, while simultaneously continuing to invest in maintenance and renewals.

Significant projects include:

- **The City Rail Link, new trains and supporting infrastructure**

  The CRL will be transformational, delivering benefits across the region. It allows for significantly improved travel times to the city centre and across the entire rail network, doubling capacity and providing a direct south to west link. It will also benefit road users, as making public transport a better travel choice option will ease pressure on roads for those who need to use them.

  The completed project provides a connection between Britomart Station and the western line at Mt Eden via a 3.45km twin tunnel underground rail link below the city centre. It will increase the capacity of the Auckland passenger rail network by transforming the downtown Britomart Transport Centre into a two-way through-station and provide significantly enhanced access to the city centre via two new underground stations at Aotea and Karangahape.

  Over $400 million will be invested in new trains, stabling and associated infrastructure to provide increased rail capacity. These trains will allow increased train frequencies and provide additional capacity to cater for the expected growth in patronage following the opening of the CRL.

  $320 million will be invested in level crossing and pedestrian crossing improvements in two groups, with the first group required for the increased train frequencies associated with the CRL.

  The CRL is being future-proofed to cater for significantly more trains than currently operate on the rail network. Investment in this RLTP will enable trains on the three main lines (Western, Southern and Eastern) to operate more frequently both during peak times and throughout the day.

  Timetables for Day One of the CRL's operation are still being developed and are expected to be outlined in the 2021 Regional Public Transport Plan (RPTP). However, it is expected that the new Day One timetable will increase the number of people who can access the city centre by train from a pre-CRL capacity limit of 15,000 per hour to 22,500 per hour post-CRL. This is a capacity increase of 7,500 people per hour.

- **Papakura to Pukekohe Electrification**

  Electrification of the rail network will be extended from Papakura to Pukekohe. This will allow the current old diesel fleet to be replaced by electric trains, reducing GHG emissions, enabling faster and more frequent services, and removing the need for customers to change trains at Papakura.

  Three new, high-quality rail stations will be built at Drury and Paerata to support Auckland's southern growth area. These stations will provide bus interchange, walking and cycling, and park and ride facilities to provide people with a range of choices on how best to access the rail network.

  An improved park and ride facility at the Papakura Station will improve access to the rail network.

- **Wiri to Quay Park**

  This project will ease congestion between freight and passenger rail services on the busiest parts of the network, and allow for increased services in the future to meet growing passenger and freight demand from the Ports of Auckland by better separating freight and passenger trains. Improvements will be delivered at Westfield and Wiri junctions, at Quay Park, and via a new third main track to be built between Middlemore and Wiri.

PROJECT NAME	RESPONSIBLE AGENCY	TEN 10-YEAR CAPITAL EXPENDITURE ($MILLION)
City Rail Link (CRL)	CRLL	2,600
EMU Rolling Stock and Stabling Tranche for CRL	AT	413
CRL Day One – Level Crossing Removal	AT	220
CRL Day One – Infrastructure Package	KiwiRail	61
CRL Day One – Resilience and Asset Maintenance Programme	KiwiRail	51
CRL Road Side Projects	AT	7
Drury Stations	KiwiRail	495
Papakura to Pukekohe Electrification	KiwiRail	375
Wiri to Quay Park	KiwiRail	318
Level Crossings Removal – Group 2	AT	100
KiwiRail Strategic Future Planning	KiwiRail	47
Progressive fencing and security	KiwiRail	20
Papakura Rail Station Park and Ride	AT	10
EMU Rolling Stock Current Tranche	AT	5

Responding to Auckland's transport challenges cont.

Bus, ferry and multimodal improvements

While the RTN operates at the top of Auckland's public transport hierarchy, the majority of boardings are on the frequent, connector and local bus and ferry networks. This RLTP contains a range of projects that will improve the reliability, capacity and attractiveness of these bus and ferry networks.

Significant projects include:

- **Downtown Crossover Bus Facilities:** Bus priority improvements along Customs Street and potential new bus facilities to the east and west of the city centre.
- **Midtown Bus Improvements** to enable an increasing number of buses to operate effectively there in the future. This project will deliver bus priority improvements along Wellesley Street and a new Learning Quarter/Grafton Gully bus facility.
- **SH16 Northwest Bus Improvements:** This project (part-funded by the Covid-19 Response and Recovery Fund) will deliver infrastructure to allow a new Northwest Express bus service to operate along SH16, connecting northwest Auckland with the city centre.

  There will be interim bus interchange facilities delivered at Westgate, Lincoln Road and Te Atatu, with improved bus shoulder lanes along the Northwestern Motorway. A long-term rapid transit solution for the northwest corridor is expected to follow in the future.
- **Airport to Botany (A2B):** This rapid transit programme will improve travel choices and journey times for people in south and east Auckland.

  Stage one of this project has delivered a new bus-rail interchange at Puhinui, bus and transit lanes between Manukau and the Auckland Airport precinct, and a new high frequency electric AirportLink bus.

  The next stages to be delivered under this RLTP involve protecting the future A2B rapid transit corridor between Auckland Airport and Botany via Manukau, and extending the new AirportLink bus to Botany via Te Irirangi Drive.

  Extending the AirportLink bus to Botany will be supported by bus interchanges and priority improvements along Te Irirangi Drive, with a move toward a rapid transit corridor in future decades.
- Over $50 million to deliver new and extended **park and ride facilities** across the region, including in locations that support Auckland's growth.
- A new $40 million programme to deliver **accessibility improvements** to public transport facilities across the region.
- Improvements to the landside transport infrastructure at **Matiatia Wharf** on Waiheke Island.
- **Other Public Transport Minor Improvements:** Almost $200 million will deliver the ongoing programme of small but important public transport improvements across the bus, train and ferry networks. This includes new and improved bus stops, bus priority lanes, public information display signs (PIDs), rail station security and ticket control gates, double decker mitigation, Rosedale Bus corridor, and new neighbourhood bus interchanges.

Airport to Botany – Te Irirangi Drive Station artist rendering

PROJECT NAME	RESPONSIBLE AGENCY	TEN 10-YEAR CAPITAL EXPENDITURE ($MILLION)
Downtown Crossover Bus Facilities	AT	220
Public Transport Safety, Security and Amenity	AT	154
Midtown Bus Improvements	AT	132
Northwest Bus Improvements	AT/Waka Kotahi	100
Airport to Botany Rapid Transit Route Protection	AT	50
Airport to Botany Stage 2 Bus Improvements	AT	30
Carrington Road Improvements	AT	55
Park and Ride Programme	AT	51
Accessibility Improvement Project	AT	40
Decarbonisation of the Ferry Fleet Stage 1	AT	30
Double Decker Mitigation	AT	29
Matiatia Park and Ride	AT	26
Sylvia Park Bus Improvements	AT	20
20Connect (SH20B) Route Protection	Waka Kotahi	15
Albert and Vincent Street Bus Priority Improvements	AT	8
Rosedale Road Corridor	AT	8
Neighbourhood Interchanges	AT	6
Community Connect (Public Transport Concession Card Trial)	AT	4
Downtown Ferry Basin Redevelopment	AT	2

Responding to Auckland's transport challenges cont.

Rapid transit and the National Policy Statement on Urban Development (NPS-UD)

An implication of the NPS-UD requirements is that investment identified in this, or future RLTP's may necessitate changes to the Auckland Unitary Plan.

The purpose of this section is to outline the status of Auckland's RTN following the investment identified in this RLTP.

It also reflects the frequency of services described in the current Regional Public Transport Plan 2018-2028 (RPTP).

Auckland's RTN will continue to develop over time. While some projects in this RLTP will improve the service characteristics of routes to the degree that they meet the criteria to be considered part of Auckland's RTN, other projects are a stepping stone on the way to achieving this status in following decades.

Auckland's existing RTN consists of the Northern Busway (between Constellation and Akoranga Stations), and the Western, Southern and Eastern rail lines.[10] Within the 10-year timeframe of this RLTP, the network will be expanded to include the Northern Busway to Albany, the new Eastern Busway, and an extension of the Southern Line to Pukekohe.

The figure below shows:

- Existing and planned rapid transit routes (i.e. the RTN that will be in place at the end of the 10-year timeframe of the RLTP)
- Future rapid transit routes (as outlined in the Auckland Plan 2050) for which some investment is identified in this RLTP but will not meet the standard of rapid transit within the 10-year timeframe of this RLTP
- Parts of the transit network that do not meet the definition of rapid transit now or in the future, but are important to support the operation of the RTN, for example, the Onehunga branch line and Northern Busway section along SH1. These parts of the network are shown as 'supplementary network'.

The locations of stops on planned services are finalised through processes outside of the RLTP (such as designations under the Resource Management Act). AT and Auckland Council will work together to determine where stops are for the purposes of meeting the NPS-UD's requirements.

[10] Some of these routes do not currently meet the frequency requirements for rapid transit; however they are proposed to do so by 2028 in the RPTP.

Connected Communities

The geography of Tāmaki Makaurau means that key strategic arterial roading corridors, mostly on the isthmus in Mt Eden, Mt Roskill, Remuera, Sandringham, Ponsonby, Grafton, Ellerslie, Panmure, Pakuranga and Manukau can become choked at certain times of day resulting in reduced productivity and impacting on the mental and physical wellbeing of Aucklanders.

A key driver for AT's Connected Communities programme is separating buses on frequent transit routes from general traffic lanes with a network of whole-of-route bus or transit lanes, thereby creating more capacity in the remaining general traffic lanes for those who have no choice but to use private motor vehicles.

This project also pioneers AT's 'dig once' philosophy to minimise disruption in local communities, incorporating and delivering 15km to 20km of safe cycling environments (and safety and walking improvements) along a number of key arterials. Notably 25 percent of DSI on strategic roading corridors are targeted by the programme.

Priority corridors for investment include:

- Symonds Street
- New North Road
- Sandringham Road
- Great North Road
- Ponsonby Road
- Mt Eden Road
- Manukau Road
- Ellerslie Panmure Highway
- Pakuranga Road.

PROJECT NAME	RESPONSIBLE AGENCY	TEN 10-YEAR CAPITAL EXPENDITURE ($MILLION)
Connected Communities	AT	583

Programmes for train, bus and ferry services and asset maintenance

AT's current funding for train, bus and ferry services and asset maintenance is set at around $7.5 billion. This is earmarked to meet the additional costs of the CRL (such as more frequent services and station operation costs), low-emission buses (to meet climate change and public health objectives) and increased asset maintenance.

AT has a strong desire to increase both the coverage and frequency of bus, train and ferry services over the next 10 years, with a focus on:

- Providing services to support new public transport infrastructure
- Implementing the services promised in the RPTP, especially for the frequent routes/corridors
- Continuing to improve the frequency and hours of operations in the existing urban areas
- Providing services as early as possible to greenfield areas to minimise car-centric travel behaviour
- Ensuring that there are competitive public transport services to the larger rural settlements.

Auckland Council has provided an additional $50 million to fund new bus and ferry services which, when coupled with an equivalent level of savings identified by AT and co-funding from Waka Kotahi, will provide an additional $200 million. AT is currently assessing how to direct this additional funding to services that achieve the best outcomes for the region.

Responding to Auckland's transport challenges cont.

Walking and cycling

There is a significant opportunity for walking and cycling to play a more substantial role in improving access and contributing to a more effective transport system in Auckland. Both walking and cycling support efforts to tackle climate change, bring significant public health benefits and make the network more productive.

The programme set out in this RLTP aims to increase active transport mode share by delivering safe and more integrated walking and cycling infrastructure, supported by a range of behaviour change activities, together with bicycle parking facilities and network-wide safety improvements like speed management.

In total, this programme is expected to deliver 200km of new and upgraded cycleways and shared paths across the region by 2031, the majority of which is included as part of the strategic cycling network. Between 100km and 125km of new cycleways will be generated from AT, 15km from Auckland Council and 59km from Waka Kotahi. Some existing cycle lanes will also be retrofitted with appropriate safety barriers.

Significant projects include:

- The **Northern Pathway,** a significant new walking and cycling connection from central Auckland to the North Shore. This will provide a critical missing link in Auckland's cycle network.
- Over $300 million is allocated to delivering AT's **On-going Cycling Programme**, which is intended to follow the completion of the Urban Cycleways Programme early in the RLTP period. This is in addition to the allocation to cycling included in the Connected Communities programme.

  With a significant increase in the cost and complexity to deliver cycleways, this programme is unlikely to be able to deliver the coverage expected in the 2018 RLTP. However, the investment strategy for this is being reviewed to ensure coordination with Waka Kotahi investment (including the revised Northern Pathway), and seek faster, more flexible and lower-cost solutions. The significant investment in cycling in Manukau and Mangere East identified by the 2017 Cycling Programme Business Case remains a priority.
- The completion of the **Urban Cycleways Programme** including projects such as the Glen Innes to Tāmaki Drive cycleway and the New Lynn to Avondale shared path.
- $49 million to continue delivering **new footpaths** in high priority locations. Feedback from the community and local boards has identified the need for more investment in footpaths. AT therefore proposes that, should it have additional funding, it will deliver a further $20 million of new footpaths over the 2021-2031 period.
- A $30 million central government contribution, through the Covid-19 Response and Recovery Fund, towards delivering the **Te Whau Pathway**.
- $30 million to allow some introductory works under the **City Centre Masterplan Access for Everyone initiative**.
- A new $30 million programme for minor improvements for cycling and micromobility. A key element of this package will be delivering **'pop up cycleways'** which will retrofit a range of existing painted cycle lanes with appropriate safety barriers. This programme will also address other issues on the existing cycling network to improve useability and enhance safety.
- Funding for a programme of tactical urbanism initiatives such as those brought to life through Waka Kotahi's **Innovating Streets Programme**.
- Operational funding to continue delivery of the **Travelwise Programme,** an innovative schools-based programme that aims to improve road safety and reduce the number of vehicles driving to and from school at peak times to help reduce congestion.

- Operational funding to continue the **Walking School Bus programme** which aims to reduce road congestion, make our environment safer and cleaner, and provide exercise for children in a fun and social way.
- Operational funding for the ongoing delivery of the **Bike Safe programme** which teaches primary, intermediate and secondary school children how to ride their bike safely.
- Continued investment in the AT **Community Bike Fund** which supports communities and groups delivering activities, events and projects that encourage more people to ride bikes more often in Auckland, especially new riders.
- Ongoing operational funding for programmes which support employers who want to encourage their people to use more sustainable modes of transport.

PROJECT NAME	RESPONSIBLE AGENCY	TEN 10-YEAR CAPITAL EXPENDITURE ($MILLION)
Northern Pathway (central Auckland to North Shore)	Waka Kotahi	785
On-going Cycling Programme	AT	306
Urban Cycleways Programme	AT	139
Glen Innes to Tāmaki cycleway – Stage 2	Waka Kotahi	19
New Footpaths Regional Programme	AT	49
Te Whau Pathway	Auckland Council	30
Access for Everyone Introductory Works	AT	30
Minor Cycling and Micromobility	AT	30
Meadowbank Kohimarama Connectivity Project	AT	22
Old Mangere Bridge Pedestrian & Cycling Link	Waka Kotahi	17
Mangere Cycleways (Airport Access)	AT	12
Tāmaki Drive/ Ngapipi Road Safety Improvements	AT	7
Walking and cycling – Low Cost, Low Risk	Waka Kotahi	6

Responding to Auckland's transport challenges cont.

Climate change and the environment

Improve the resilience and sustainability of the transport system and significantly reduce the GHG emissions it generates

The Climate Change Commission's 2021 Draft Advice for Consultation states:

"In Aotearoa we need to change the way we build and plan our towns and cities and the way people and products move around. This includes making walking and cycling easier with good cycleways and footpaths. It means moving freight off the road and onto rail and shipping. It means reliable and affordable public and shared transport systems. And it means an electric or low emissions fleet." [11]

The approach set out in this RLTP takes an approach broadly consistent with these themes but notes far more needs to be done to reach Auckland Council's climate change emissions targets.

The key contribution to climate change in the RLTP is the extensive investment in network infrastructure and services, designed to encourage mode shift away from private vehicles and towards lower emission public and active transport options. Over $10.5 billion, or 57 percent of the total capital improvement programme proposed to be made over the next 10 years, is invested in public transport or walking and cycling.

The programme will also make significant progress towards decarbonising Auckland's public transport fleet by:

- Electrifying the rail line to Pukekohe (covered under the rail section above), enabling disposal of Auckland's remaining diesel passenger trains
- Funding acceleration of the Low Emissions Bus Roadmap. All new buses will be electric or hydrogen powered from 2021, with 40 to 50 percent of the total bus fleet being hydrogen or electric powered by 2031 depending upon the level of government support.

It's anticipated that the investment in low emissions buses and replacement of the diesel trains operating between Pukekohe and Papakura will see a 65.1 percent reduction in emissions from the public transport fleet by 2030.

Emissions from ferries make up a disproportionately high amount (19 percent) of total emissions from the public transport fleet. Noting that technology is less mature in the development of low emissions ferries, this RLTP allocates $30 million to start decarbonisation of the ferry fleet.

Work is also underway to determine how transport emissions from AT owned assets and infrastructure, such as parking buildings, street lights, and public transport facilities can be further reduced. A promising start has been made with the change-out of street lights across Auckland. Further activities will see AT meet its Board endorsed objective of reducing emissions from its own corporate activities by 50 percent by 2030.

In addition to these, Te Tāruke-ā-Tāwhiri: Auckland's Climate Plan sets out eight 'priorities for action' to deliver its goals. AT has a lead role, sometimes jointly with Auckland Council, on many of the transport actions. This RLTP supports those actions through:

- Investing in the rapid transit network, bus network and cycling network to accelerate mode change towards sustainable travel modes and help shape a more sustainable and attractive urban form
- Making transport more affordable and improving accessibility through investment such as the Community Connect trial and the Accessibility Improvement Programme
- Supporting key growth areas, particularly brownfields areas, with a focus on encouraging use of sustainable transport modes
- Increasing the investment to maintain, renew and increase the resilience of the existing transport network, including footpaths, to ensure it continues to enable people to get to places where they want to live, work and play.
- Implementing the Auckland priorities included in the New Zealand Rail Plan
- Investing to decarbonise the public transport fleet and support the uptake of EVs
- Supporting a zero emissions area in the city centre through the Access for Everyone project

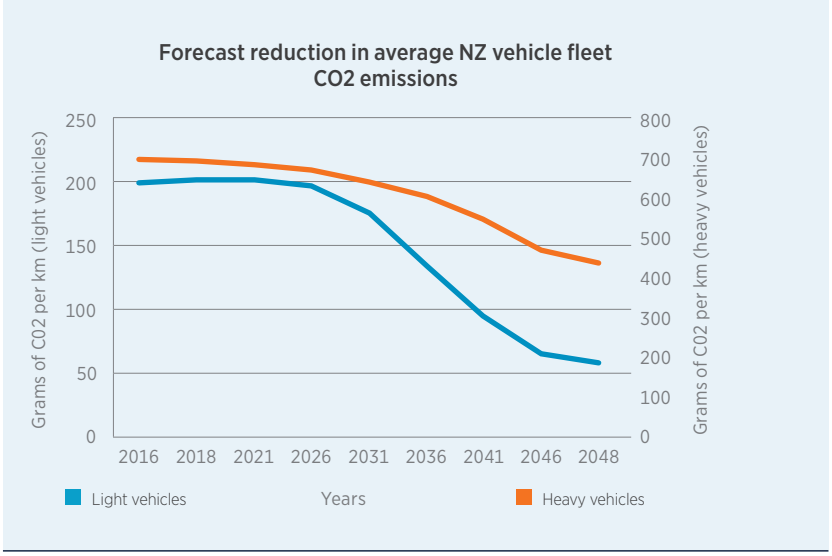
This RLTP investment programme is only one component of a comprehensive set of measures needed to reduce transport GHG emissions. The RLTP does not exist to set government policy, and additional measures are needed that are beyond its scope to implement.

[11] He Pou a Rangi – Climate Change Commission (2021). "2021 Draft Advice for Consultation".

The intervention with the greatest potential to reduce emissions is the accelerated uptake of EVs.

This was identified by the MoT in 2018, reiterated by the Productivity Commission, the Climate Change Commission in 2021, and has been reinforced by modelling work. New Zealand is also in a uniquely favourable position to benefit from EV technology as we have an electricity source that is 82 percent renewable.

Current published projections by the MoT and Waka Kotahi show EVs and other zero emission vehicles starting to enter the New Zealand fleet in large numbers toward 2030, leading to a rapid reduction in average light vehicle fleet emissions from 2031. This would result in a 70 percent reduction in average light vehicle emissions per kilometre by 2048.



Heavy vehicles will be slower to change, reflecting the significant technical challenges with zero emissions freight vehicles. Although encouraging, these trends are not enough to achieve zero emissions generated from the transport sector by 2050.

The accelerated uptake of EVs is vital to reduce road transport emissions. But to meet the 2050 target, at least for the light vehicle fleet, the entry of light vehicles into the fleet needs to be accelerated by five to 10 years. In other words, it needs to ramp up right now.

Supporting the uptake of electric vehicles and low emission vehicles

Materially reducing emissions requires immediate and rapid electrification of the vehicle fleet, so it is essential to address the primary purchase barrier of affordability through purchase incentives. Pairing purchase incentives with convenience interventions that make using an EV easier and cheaper (with increased awareness) can potentially support a swifter uptake.

Common intervention types suitable to Auckland are parking benefits, supporting additional public chargers, public charger navigation, charging benefits, and infrastructure use and access benefits. The following table describes these intervention areas and actions taken in Auckland.

Actions and responsibilities

INTERVENTIONS	ACTIONS TAKEN
Parking benefits such as exemptions or reductions on parking fees or time limits, preferential parking access, and wait-list priority on long-term parking	AT (2018-): 48 dedicated EV parking spaces (with chargers)
Support additional public chargers such as the provision of public chargers or making land available for public chargers	AT (2018-): 50 public EV chargers Other (as at August 2020): ~80 public EV chargers
Public charger navigation such as physical signage or digital tools to locate public chargers	AT (2020): Limited information on AT public chargers
Charging benefits such as free or reduced fees for public charging, monthly flat-rate charging for heavy users, including car-sharing, ride-share, and taxi companies	AT (2018-): Free charging at 50 chargers AT (2020): Providing electricity supply infrastructure for 21 car-share chargers
Infrastructure use and access benefits such as access to bus and other restricted lanes, reductions or exemptions on road tolls and congestion charges	Waka Kotahi (2017-2018): Access to bus lanes at selected State Highway 1 on-ramps AT (2030): Zero-emission Queen Street Zone (within Access for Everyone programme)

Responding to Auckland's transport challenges cont.

To tackle these barriers $34 million has been allocated to support the uptake of EVs by Aucklanders, which is expected to complement central government initiatives.

Given the current actions taken in Auckland, there is scope for AT to implement further interventions, however they are unlikely to be effective on their own.

The NZ Government has a long-running EV awareness campaign provided by the Energy Efficiency and Conservation Authority (EECA), and a range of government interventions are being planned to lower the emissions of vehicles entering the fleet. These include the recently announced clean car standard for new and used light vehicles, and consideration of a mandate for lower-emitting biofuels and the central government's recently announced Clean Car Package to incentivise the uptake of low emission vehicles.

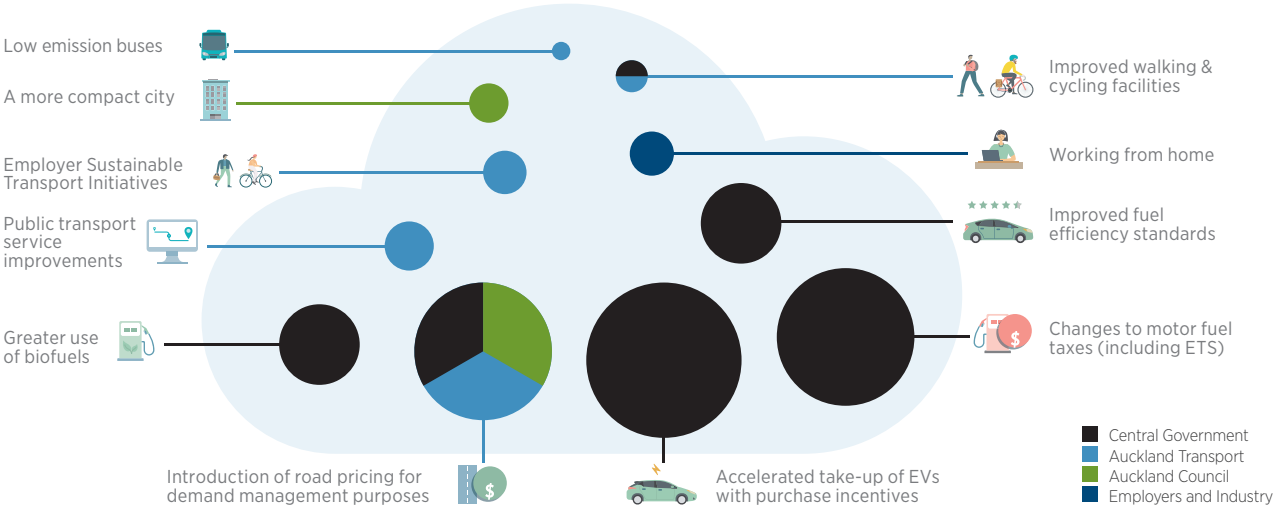
Towards a comprehensive approach

Domestic and international research shows that following the accelerated uptake of EVs, the following supporting interventions are effective: road pricing, fuel taxes, greater use of biofuels, improved vehicle efficiency, providing alternatives to private vehicle use and increasing urban density to reduce sprawl.

A recent study found that without purchase incentives, local interventions to support EVs had minimal impact on increasing their uptake.[12] European cities with the highest EV uptake (Amsterdam, Bergen, Oslo, and Stockholm) have policies addressing purchase price, awareness and convenience.

As part of developing a plan to achieve Auckland Council's commitments to a 50 percent total emissions reduction by 2030, the Auckland Forecasting Centre[13] considered how this goal might be achieved. It highlighted, much as the Climate Change Commission has done in its work to date, that a suite of interventions is required. This will require an integrated approach by multiple organisations with the ability and mandate to take action.

How Auckland's transport contribution to a 50% total emissions reduction might be achieved



[12] The International Council for Clean Transport (2020) Analysing policies to grow the electric vehicle market in European cities. https://theicct.org/publications/electric-vehicle-policies-eu-cities

[13] The Auckland Forecasting Centre is a joint venture between Waka Kotahi, Auckland Council and AT with experts in transport forecasting with over 150 years collective experience.

The full suite of potential key actions, and the party with the responsibility for delivery, is set out in the following table.

Proposed actions and responsibilities

INTERVENTIONS	RESPONSIBILITY
Accelerate EV uptake with purchase incentives	Government: To design the incentive and provide funding
Road pricing[14]	Government: Legislation required to implement, and owner of state highways AT: Owner of local roads where pricing would be applied Council: Co-decision-maker in road pricing
Motor fuel taxes (including the Emission Trading Scheme)	Government: Responsible for fuel tax regime
Greater use of biofuels	Government: Sets fuel specifications
Improve vehicle fuel efficiency standards	Government: Sets vehicle specifications
Provide alternatives to private vehicles with public transport, cycling and walking	AT and Waka Kotahi: Responsible for infrastructure provision and public transport services
Introduce employee remote working (one day per week)	Industry: Implement workplace policies
Increase urban density and reduce sprawl	Auckland Council

Tackling the emissions challenge is complex and requires a systems-based approach taking account of a number of factors, including technology maturity and supply chains, equity and behaviour change.

In the context of this challenge, Auckland needs a climate plan which sets out the agreed pathway for reducing transport emissions to meet Auckland Council's emissions targets.

[14] Road pricing options recommended by The Congestion Question have focussed primarily on reducing peak congestion levels. Wider and more expensive road pricing options will likely be required to achieve substantial reductions in regional transport emissions.

Responding to Auckland's transport challenges cont.

PROJECT NAME	RESPONSIBLE AGENCY	TEN 10-YEAR CAPITAL EXPENDITURE ($MILLION)
Supporting Electric Vehicles	AT	34
Environmental sustainability infrastructure	AT	20
Electric Bus Trial Roadmap	AT	9

Water quality and other sustainability initiatives

Improved land use and transport integration, enhanced operations and maintenance practices, improved design standards for projects and new technologies all provide opportunities to meet the challenges presented by the environmental impacts of the transport network.

Activities to be delivered under this RLTP include:

- Trialling green infrastructure initiatives to reduce heat stress and improve biodiversity
- Improving unsealed roads to reduce sediment run-off and improve stormwater quality
- Including water sensitive design as part of infrastructure development
- Ensuring maintenance and operational practices minimise impacts on the environment
- Improving waste practices across infrastructure construction and facilities management, including the consideration of using low impact materials during construction (e.g. recycled materials)
- Reducing the use of potable water for non-potable activities like dust-supression
- Trialling on-site renewable technologies
- Embedding sustainability requirements into procurement practices.

Work is underway on further actions that will support the objectives of the National Policy Statement for Freshwater Management 2020.

Safety

Make Auckland's transport system safe by eliminating harm to people

The investment programme in this RLTP will build on recent progress in reducing DSIs on Auckland roads, and aims to deliver on the Vision Zero for Tāmaki Makaurau Transport Safety Strategy adopted in 2019.

The ultimate goal and vision of this strategy is that there will be no DSI on our transport system by 2050. The strategy is based on the 'Safe System' approach to improving road safety. In short, the programme aims to provide safe roads, safe drivers, safe speeds and safe vehicles.

Significant projects include:

- Over $650 million of AT investment to deliver the **AT Safety Programme**, which will deliver improvements targeted towards speed management, high risk intersections, high risk corridors and vulnerable road users.
- $100 million for minor improvements across the network
- $154 million of Waka Kotahi investment to deliver the state highway **Safer Networks Programme**
- **SH16 Brigham Creek-Waimauku:** This project will deliver a range of safety and access improvements between Waimauku and the end of the Northwestern Motorway at Brigham Creek Road. Components include new safety barriers, turning bays, flush medians, a new roundabout at the Coatesville-Riverhead Highway intersection, upgrading the corridor to four traffic lanes from Brigham Creek Road to the Taupaki Roundabout, and potentially a new dedicated walking and cycling shared path from Brigham Creek Road to Kumeu.
- $75 million for a new **School Speed Management** programme focussed on making the roading environment for young people around schools safer
- $13 million to **Marae and Papakāinga safety improvements**
- Continued delivery of the **'Te Ara Haepapa' Programme** – a programme co-designed with Māori to improve road safety outcomes for Māori
- Ongoing **road safety education**, such as online newborn and child restraint courses, courses targeted at 'rangatahi' (young people) and awareness programmes targeting high-risk behaviours.

PROJECT NAME	RESPONSIBLE AGENCY	TEN 10-YEAR CAPITAL EXPENDITURE ($MILLION)
Safety Programme	AT	657
Safer Networks Programme	Waka Kotahi	154
SH16 Brigham Creek-Waimauku	Waka Kotahi	137
Minor Improvements	AT	100
School Speed Management	AT	75
Dome Valley Safety Improvements	Waka Kotahi	32
Marae and Papakāinga (Turnouts) safety programme	AT	13
Community Safety Fund	AT	10

Responding to Auckland's transport challenges cont.

Policy initiatives to further reduce DSI

Outside of this capital programme, a relentless focus on delivering safety improvements is needed over the next 10 years to meet Auckland's 2050 Vision Zero goal. This will require a range of operating and capital improvements funded under this RLTP, and consideration of wider policy changes that would need to be implemented by central government.

A number of policy changes proven to be successful in similar overseas cities, regions and countries were highlighted in the 2018 Road Safety Business Improvement Review commissioned by the AT Board of Directors and undertaken by global expert Eric Howard. They include:

- Higher penalties (fines and demerit points) for speed, distraction, impairment and restraint offences
- Demerit points for all safety camera generated offences
- A review of road policing in Auckland with a view to achieving best practice levels of enforcement, and meeting current national targets identified through the road safety partnership
- Enhanced enforcement of drug driving and progressing the Land Transport (Drug Driving) Amendment Bill
- Policies to improve the safety of heavy vehicles for vulnerable road users, such as truck side under-run protection and other safety technology to improve visibility and communication between drivers and vulnerable road users
- Simplified processes for the setting of speed limits including cycle changes under the proposed speed management plan approach
- Higher speed penalties for heavy vehicle drivers and more restrictive alcohol limits for drivers of heavy vehicles and public transport vehicles (including buses and taxis)
- Removing the capacity for courts to award a work-related licence for a drink driving offender.

It should be noted that policy changes such as the speeding up of EV transition are likely to bring road safety benefits, as an increased number of these vehicles on our roads would have a higher safety (ANCAP) rating, so that in the case of a crash the likelihood of DSI would reduce.

Access and connectivity

Better connect people, places, goods and services

Strategic and local multi-modal roads

Auckland's state highways and arterial roads form the backbone of Auckland's road network. They provide for a wide variety of travel, carry the heaviest freight volumes, provide access to key destinations (such as the Ports of Auckland, Auckland Airport and other freight and business hubs), and connect Auckland to the rest of New Zealand through northern and southern inter-regional connections.

Congestion on the general traffic strategic network, at peak times and increasingly in inter-peak periods, negatively affects the region's productivity and increases the cost of doing business as well as affecting Aucklanders' quality of life.

Over the past 10 years, productivity improvements to counteract population increases, and the increased number of trips and kilometres driven on Auckland's key corridors has been achieved by introducing bus and transit lanes or accompanying safe cycling infrastructure, as well as building a small number of new corridors (such as the Waterview Project).

While there are a small number of opportunities to build new corridors or expand existing ones, the majority of Auckland's traffic growth will need to be accommodated within existing corridors.

Making best use of existing corridors will be achieved by projects that encourage greater use of buses and walking and cycling. Initiatives like Connected Communities, which will improve safety, productivity and carrying capacity on a number of existing urban corridors and through a range of smaller investments which optimise existing corridors.

In keeping with modern worldwide approaches to transport planning, most of these corridors, especially within the urban area, are multi-modal projects delivering upgrades to public transport, cycling and safety along with general traffic.

In terms of new or improved corridors, significant investments within this RLTP include:

- **Mill Road safety improvements and local infrastructure investment in Drury network:** This project, funded through the NZUP, is expected to involve a two-lane upgrade of Mill Road between Flat Bush and Alfriston, tying into the existing urban Redoubt Road dynamic lanes. There will also be targeted safety improvements between Alfriston and Papakura, and transport upgrades to release housing and local centres in Drury in a way that supports decarbonisation objectives.
- **Puhoi to Warkworth motorway extension:** This project, currently under construction, extends the existing four-lane SH1 Northern Motorway 18.5km from the Johnstones Hills Tunnels to just north of Warkworth. It will provide improved access, a much safer corridor, as well as faster and more reliable travel times to and from Northland, Warkworth and northeast Rodney.
- **SH1 Papakura to Drury South Stage One improvements:** This NZUP-funded project follows on from the recent widening of SH1 between Manukau and Papakura. The project will widen SH1 and deliver a new shared path. The NZUP South Auckland investment will also include active modes and public transport.
- **Penlink:** Provision of a new tolled connection, funded through the NZUP, between the Northern Motorway and Whangaparāoa Peninsula. The project will relieve pressure on the constrained SH1 Silverdale Interchange, support development in Auckland's northern growth area, and provide significant time savings for people living on the Whangaparāoa Peninsula.
- **Northern Corridor (includes busway extension):** Currently under construction, this project will complete the Western Ring Route. It involves upgrading the northern end of SH18 to motorway standard, delivers a new SH18-SH1 motorway-to-motorway connection, widens SH1 between Constellation Drive and Oteha Valley Road, extends the Northern Busway from Constellation Drive to Albany, and provides new walking and cycling shared paths along the upgraded parts of SH1 and SH18.
- **Lincoln Road:** Improvements between Te Pai Place and the Northwestern Motorway to accommodate additional transit lanes, intersection and safety improvements, and upgraded walking and cycling facilities.
- **Glenvar Road/East Coast Road improvements:** New transit lanes along East Coast Road, intersection upgrades, and new and improved walking and cycling facilities to support the Long Bay Development area, improve network productivity and improve safety.
- **Lake and Esmonde Road improvements:** New transit lanes and walking and cycling facilities to improve journey time reliability, network productivity and improve safety.
- A new $14 million AT **Core Operational Capital Programme:** This will provide funding for the purchase of small operational assets required to support provision of services to the public (e.g. Harbourmaster assets).
- Property and investigation for several **Waka Kotahi projects**, such as Additional Waitematā Harbour Connections, the East West Link, Warkworth to Wellsford designation, SH1 Drury South to Bombay, and Grafton Gully.

This RLTP also includes a suite of ongoing programmes that will provide a range of smaller improvements to unsealed roads, signage and state highways across the region.

Feedback from the community and local boards also identified the deficiencies of the Dairy Flat Highway/The Avenue intersection. AT therefore proposes that, should it have additional funding, it will deliver improvements at this intersection over the 2021-2031 period, with an estimated cost of $12.5 million (uninflated).

Responding to Auckland's transport challenges cont.

PROJECT NAME	RESPONSIBLE AGENCY	TEN 10-YEAR CAPITAL EXPENDITURE ($MILLION)
Mill Road safety improvements and local infrastructure investment in Drury network	Waka Kotahi	874
Puhoi-Warkworth	Waka Kotahi	874
Penlink	Waka Kotahi	830
State Highway 1 Papakura to Drury South – Stage 1	Waka Kotahi	655
Southern Corridor Improvements (Manukau-Papakura) [Debt repayment]	Waka Kotahi	241
Northern Corridor (includes busway extension)	Waka Kotahi	152
Lincoln Road Corridor Improvements	AT	106
Regional Improvement Projects	AT	62
Glenvar Road/East Coast Road intersection and corridor improvements	AT	57
Parking Programme	AT	49
Lake Road/Esmonde Road Improvements	AT	48
SH20A to Airport (Debt Repayment)	Waka Kotahi	48
Wynyard Quarter Integrated Road Programme	AT	46
Unsealed Road Improvements	AT	40
Smales Allens Road Widening and Intersection Upgrade	AT	23
Hill Street Intersection Improvement	AT	19
Resolution of Encroachments and Legacy Land Purchase Arrangements	AT	17
Ormiston Town Centre Link	AT	17
Noise wall upgrade programme	Waka Kotahi	15
Core Capital Operational Programme	AT	14
State Highway Low Cost Low Risk Programme	Waka Kotahi	13
Improvements Complementing Developments	AT	12
Medallion Drive Link	AT	12
SH1 Additional Waitematā Harbour Connections (Business Case, Designations and Property)	Waka Kotahi	60
East West Link (Property)	Waka Kotahi	31
Warkworth to Wellsford (Designation)	Waka Kotahi	21
SH1 Drury South to Bombay (Route Protection)	Waka Kotahi	18
Grafton Gully Improvement Business Case	Waka Kotahi	15

A number of corridor projects that were included in the 2018 RLTP are not proposed to be included in this RTLP. These include the full East West Link, the full Dairy Flat Highway and Gills Road Link. Transport asset renewals, public transport and cycling projects, and support for housing development were given priority.

Optimisation programmes

The major part of Auckland's future growth in travel demand will need to be accommodated by existing transport corridors. To achieve this Auckland needs to make better use of its existing transport system, and increase the number of people and freight that can travel through key routes and corridors.

Reconfiguring or 'sweating' our existing transport network harder to increase overall productivity involves improving connectivity to key public transport hubs and interchanges, improving the efficiency and coordination of traffic signals to improve throughput and reduce delays, using dynamic traffic lanes to improve peak traffic flows, and providing priority for freight on key freight connections.

Optimisation activities in this RLTP include:

- $168 million of investment in **AT's Network Performance** programme, which delivers a range of targeted small to medium scale infrastructure projects to optimise routes. Initiatives to be delivered include removing 'pain points' along corridors for walking and cycling, public transport and private vehicles, synchronising traffic signals, optimising road layout, dynamic traffic lanes and managing traffic restrictions. A dedicated allocation for freight improvements is also included.
- Over $120 million of Waka Kotahi investment in **Intelligent Transport Systems** and optimisation activities.
- $52 million of AT investment in Intelligent Transport Systems to utilise **emerging technologies** to better manage congestion, improve safety and influence travel demand.

An investigation into the feasibility of introducing congestion pricing to improve network performance and reduce congestion is currently underway. The Congestion Question (TCQ) will inform decisions on whether or not to proceed with introducing such pricing in Auckland. At this stage however, the cost of implementing congestion pricing has not been included in this RLTP.

PROJECT NAME	RESPONSIBLE AGENCY	TEN 10-YEAR CAPITAL EXPENDITURE ($MILLION)
Network Performance (including Freight Network Improvements)	AT	168
ITS Programme & State Highway Optimisation Programme (Optimisation PBC state highway component)	Waka Kotahi	124
Intelligent Transport Systems	AT	52

Responding to Auckland's transport challenges cont.

Policy initiatives – The Congestion Question

Aucklanders currently pay for use of the roading network through Petrol Excise Duty (PED) and Road User Charges (RUC) and, as set out previously, the Auckland RFT. The rates of PED and RUC are specified in legislation and all money raised goes into the NLTF, which helps fund the improvement, operation and maintenance of our land transport network. PED is around 70 cents per litre of petrol and the rates of RUC vary depending on the weight and the configuration of the vehicle.

While the current road charging mechanisms are well known and have supported land transport in New Zealand, over the longer term they will need to change as more New Zealanders transition to EVs.

A further limitation of current pricing mechanisms is that they have almost no influence on the decision Aucklanders make as to when they might take a car trip, whether they should make the trip at all, whether they might substitute a car trip for a public transport trip or a trip on foot or cycle, and what route they might take.

An investigation into the feasibility of introducing a demand management based pricing scheme to improve network performance and reduce congestion is progressing. Further, more detailed design of the technical concept study (called The Congestion Question – see below) and engagement with Aucklanders will inform decisions on whether or not to proceed with introducing such pricing in Auckland.

TCQ is an investigation by the Government and Auckland Council to consider whether there is a case for introducing a congestion pricing scheme for Auckland. The Government has not made a decision to implement congestion charging in Auckland, but road pricing has the significant potential to be a key part of the ATAP program.

With the right design, supported by improved public transport services and a mitigation programme to assist vulnerable road users, the opportunity exists for Auckland to benefit from a sustainable eight percent to 12 percent improvement in network performance once a full scheme becomes operational.

This is similar to traffic conditions observed during the school holidays and would deliver productivity benefits for the freight industry and travel time benefits for those needing to travel by motor vehicle, particularly at peak times.

The introduction of an Auckland congestion pricing scheme also has the potential to support an improvement in local air quality and reduce GHG emissions alongside other supporting interventions.

The TCQ investigation has recommended that a potential congestion pricing scheme in Auckland be introduced in stages, with the first phase based around the City Centre area, introduced to coincide with the opening of the CRL. Over time, congestion pricing would be introduced along congested corridors, with the implementation timetable informed by the RLTP.

Work to date was most recently endorsed by the AT Board of Directors in December 2020 and Auckland Council's Planning Committee has approved moving to the next phase of work.

At this stage however, neither the cost of implementing congestion pricing or the benefits that would accrue from its implementation have been included in this RLTP. Operational funding will allow ongoing investigation work.

More information about TCQ is available at **www.transport.govt.nz/area-of-interest/auckland/the-congestion-question/**

Growth

Enable and support Auckland's growth through a focus on intensification in brownfield areas and with some managed expansion into emerging greenfield areas

Accommodating Auckland's population growth requires further acceleration of the construction of housing and business development. Much of this development is supported by the broad investment programme outlined above, along with the infrastructure provided by developers themselves. Auckland Council and Government are, however, seeking to encourage growth in a number of spatial priority areas in brownfields and greenfields areas, where the availability of land or links to public transport or other infrastructure provides advantages.

The ATAP process identified support for brownfields development as the highest priority for growth investment. This RLTP therefore allocates around $400 million of new investment towards brownfields developments in Mangere, Mt Roskill, Oranga, Northcote and Tāmaki, with central government contributing a further $100 million. This will support construction of up to 17,000 new homes along with encouraging more use of public transport and active modes while minimising congestion.

Greenfield areas often need substantial investment before significant development can occur. Much of this investment will typically come from developers who provide the base roading networks. Nevertheless, additional large-scale investment is often needed to connect these areas to the network in a way that encourages more sustainable transport behaviour and minimises congestion impacts. With limited funding available, the priority has been on route protection, property purchase and infrastructure to support the effective operation of rapid transit and bus links for these areas, rather than additional road capacity.

The Supporting Growth Programme, a transport network plan developed to support Auckland's Warkworth, Northern, Northwest and Southern greenfield growth areas, identifies desirable transport infrastructure much exceeds the funding available, so only the highest priority items are included within this RLTP. The ATAP work identified the Northwest, followed by Drury and Pareata as the highest priorities for new greenfield investment to support growth.

In terms of specific projects, this RLTP includes funding for:

- $401 million, with a further $100 million to come direct from central government, to support the **Auckland Housing Programme** in brownfield areas. This will provide for public transport and walking and cycling infrastructure in these areas to encourage sustainable transport behaviour, along with intersection upgrades to minimise impact on the operation of the surrounding road network.
- $328 million for **greenfield transport infrastructure** projects in the Northwest, which targets key infrastructure to support future bus operations along with route protection and property acquisitions for bus access along prospective transport corridors.
- $243 million for **local road improvements** to support the urban development of Drury including access to new rail stations. This is in addition to the South Auckland package, including rail improvements, funded through NZUP.
- Funding to continue the **Supporting Growth Alliance**, which is progressing investigation and route protection activities for the transport networks required to support Auckland's Warkworth, Northern, Northwest and Southern growth areas.
- **SH18 Squadron Drive Interchange upgrade:** New west-bound on and off-ramps to complete the interchange (only east-bound ramps are currently provided) and support the Hobsonville and Whenuapai growth areas.
- Delivery of specific projects to **support and enable growth** in Warkworth (Matakana Link Road), Wainui, Huapai, and Hobsonville (Scott Point).

Responding to Auckland's transport challenges cont.

Over the past 10 years all of the transport agencies have supported Auckland Council to accelerate consenting for new housing developments to address the housing shortage. As recently as January 2021, over 17,100 new dwellings were consented in the preceding 12 months. This represents a 14 percent increase over the previous 12 months and is the highest level of consenting Auckland has seen for decades. This now takes current levels of home building above what is required to keep up with population growth, and, with limited immigration likely over the next 12 months, presents the opportunity to close at least some of the gap between housing demand and supply.[15]

PROJECT NAME	RESPONSIBLE AGENCY	TEN 10-YEAR CAPITAL EXPENDITURE ($MILLION)
Projects supporting Auckland Housing Programme (additional central government investment anticipated)	AT	401
Drury Local Road Improvements	AT	243
Northwest Growth Improvements	AT	186
Greenfield transport infrastructure – Northwest	AT	142
SH18 Squadron Drive interchange upgrade	Waka Kotahi	68
Greenfield Transport Infrastructure Supporting Growth Post Lodgement and Property	AT	65
Supporting Growth Route Protection Programme	Waka Kotahi	44
Tāmaki Regeneration	AT	41
Supporting Growth - Investigation for Growth Projects	AT	28
Matakana Link Road	AT	26
Wainui Improvements	AT	23
Strategic Business Cases	AT	22
Huapai Improvements	AT	18
Western Link Road Route Protection	AT	6
Scott Point Repayment	AT	5

[15] Office of the Mayor of Auckland (March 2021). "Strongest year ever for housing consents in Auckland, with 17,000 dwellings consented". Media release – 4 March 2021.

Asset management

Sound management of transport assets

Auckland Transport

AT is the regional guardian of $21.1 billion of publicly-owned transport assets, including 7,638km of arterial and local roads, 7,431km of footpaths, 348km of cycleways, and public transport assets including a growing fleet of electric trains, rail and busway stations, bus shelters, ferry wharves and two airfields on the Gulf Islands.

Maintaining and renewing these assets is a significant undertaking. AT has completed a comprehensive review of its asset renewals programme for this RLTP to ensure that it is delivering fit-for-purpose levels of service and achieving value for money. It is critical to invest appropriately in asset renewals to ensure public safety, reduce the risk of asset failure, and to maintain adequate levels of service.

Increasingly, in a very different Auckland than even 20 years ago, a number of assets not only need to be renewed but improved to meet current objectives. Where practicable, and funds exist to complement renewals funding, the work that occurs will take account of the future needs of the network.

A 10-year investment of $3.93 billion has been included in this RLTP to cover the cost of renewing AT's asset base. This RLTP has $900 million more in AT renewals than the $3.05 billion included in the 2018 RLTP.

Waka Kotahi

Waka Kotahi is responsible for developing, operating and maintaining the state highway network, including Auckland's motorway system. It's Auckland assets are valued at around $15.9 billion.

This RLTP allocates $1.86 billion for state highway renewals, maintenance and operations over the 2021-2031 period to ensure the network remains safe, reliable and resilient.

KiwiRail

KiwiRail is responsible for developing, maintaining and operating the rail network in the Auckland Region, which is funded by KiwiRail and AT through the Auckland Network Access Agreement (ANAA).

This RLTP includes $293 million to cover KiwiRail renewals, and $51 million for the CRL Day One Resilience and Asset Maintenance Programme (included in Rail Network Improvements). These represent KiwiRail's share of the costs. AT's share of costs is included in its operating budget. The final allocation of costs between KiwiRail and AT is determined in accordance with the arrangements in the ANAA.

PROJECT NAME	RESPONSIBLE AGENCY	TEN 10-YEAR CAPITAL EXPENDITURE ($MILLION)
Auckland Transport Renewals	AT	3,931
State Highway Maintenance, Operations & Renewals	Waka Kotahi	1,862
Rail Network Maintenance, Operations and Renewals	KiwiRail	293
Seismic Strengthening Programme	AT	25
Street Lighting Improvements	AT	17
Wolverton Culverts	AT	10

Responding to Auckland's transport challenges cont.

Other items

Local Board programmes, planning for the future, technology and organisational improvement initiatives

Local board-led programmes

This RLTP includes a $200 million Local Board Initiatives fund to be split between Auckland's 21 local boards, and provide for an ongoing programme of smaller-scale local transport improvements. Each local board decides on its own investment priorities.

In 2018 the Rodney Local Board decided to establish a Rodney Transport Targeted Rate to fund additional transport improvements – bus services, park and rides and footpaths – not otherwise included in the RLTP. The ongoing implementation of this targeted rate has been included within this RLTP.

In 2020 AT worked with the Waiheke Local Board to define the transport priorities for Waiheke over the next 10 years. This RLTP includes $10 million to begin implementing priority initiatives.

In addition to Local Board Initiatives, AT is committed to working with Local Boards around the funding and allocation of various local programmes that improve community outcomes. This continues the success of what we have achieved working with the local boards in the last 12 months.

PROJECT NAME	RESPONSIBLE AGENCY	TEN 10-YEAR CAPITAL EXPENDITURE ($MILLION)
Local Board Initiatives	AT	200
Projects funded by Rodney Transport Targeted Rate	AT	22
Waiheke 10-year Transport Plan	AT	10

Customer experience, technology and organisational improvements

Technology improvements such as the AT HOP card and real-time travel information have made a significant contribution to recent rapid increases in public transport use. The programme includes provision for further improvements to the AT HOP system and preparation for the new generation public transport ticketing system. Ongoing investment in technology will also enable further improvements to the public transport customer experience, including improvements to real time information such as audio announcements in both English and Te Reo Māori on buses.

Technology also provides transport organisations with the opportunity to deliver their services in more efficient and effective ways. For example, AT is increasingly using technology including CCTV and car mounted cameras to support its parking and enforcement activities. AT is also introducing a new Enterprise Asset Management and project management systems to deliver value for money.

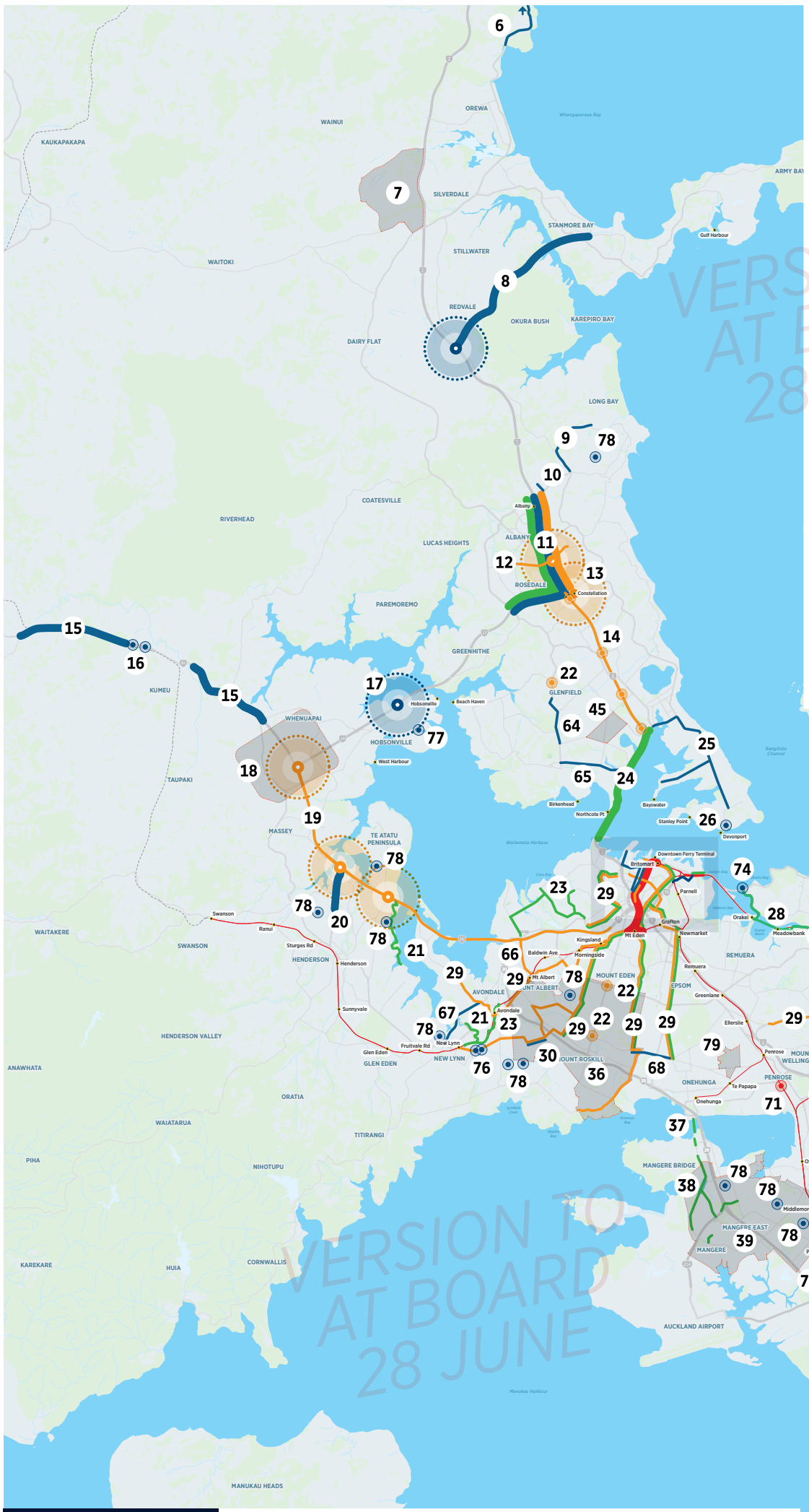
The programmes included within this RLTP reflect AT's ongoing investment in technology to support improved customer experience and complete activities to close-out recommendations in the review of Auckland CCOs.

PROJECT NAME	RESPONSIBLE AGENCY	TEN 10-YEAR CAPITAL EXPENDITURE ($MILLION)
Customer and Business Technology	AT	353
Core Technology	AT	57
Transport Demand Forecasting Models Update	AT	6

“Sometimes environmentally friendly products are more expensive and we need to make the most positive impact as fast as possible”

Travel survey recipient

Regional Land Transport Plan 2021-2031



Key

- Corridor
- Interchange
- Improvement
- Bus and ferry
- Interchange
- Improvement
- Rail
- Interchange
- Improvement
- Active
- Improvement

1. Dome Valley Safety Improvements (Waka Kotahi)
2. Matakana Link Road (AT)
3. Safety Programme - Matakana Road (Melwood Drive to Green Road) (AT)
4. Projects Funded by Rodney Transport Targeted Rate - Warkworth Community Transport Hub (AT)
5. Puhoi-Warkworth (Waka Kotahi)
6. Safety Programme – Hibiscus Coast Highway (Hatfields Bridge to Waiwera Road) (AT)
7. Wainui Improvements (AT)
8. Penlink (Waka Kotahi/NZUP)
9. Glenvar Road/East Coast Road intersection and corridor improvements (AT)
10. Medallion Drive Link (AT)
11. Northern Corridor (includes busway extension) (Waka Kotahi)
12. Rosedale Road Corridor (AT)
13. Rosedale and Constellation Bus Stations (AT)
14. Northern Busway Enhancements (AT)
15. SH16 Brigham Creek-Waimauku (Waka Kotahi)
16. Huapai Improvements (AT)
17. SH18 Squadron Drive Interchange Upgrade (Waka Kotahi)
18. Greenfield transport infrastructure – Northwest (AT) and Northwest Growth Improvements (AT)
19. Northwest Bus Improvements (AT/CRRF)
20. Lincoln Road Corridor Improvements (AT)
21. Te Whau Pathway (Auckland Council/CRRF)
22. Neighbourhood Interchanges (AT)
23. Urban Cycleways Programme (AT)
24. Northern Pathway (Waka Kotahi/NZUP)
25. Lake Road/Esmonde Road Improvements (AT)
26. Safety Programme - Devonport Town Centre (AT)
27. Matiatia Park and Ride (AT)
28. Glen Innes to Tamaki cycleway (AT/Waka Kotahi)
29. Connected Communities (AT)
30. Network Performance - Maioro Street Dynamic Bus Lane (AT)
31. Meadowbank Kohimarama Connectivity Project (AT)
32. Projects Supporting Auckland Housing Programme (Tamaki) (AT) and Tamaki Regeneration (AT)
33. Eastern Busway (AT)
34. Sylvia Park Bus Improvements (AT)
35. Network Performance - Mount Wellington Highway/SH1 Southbound Onramp (AT)
36. Projects Supporting Auckland Housing Programme (Roskill) (AT)
37. Old Mangere Bridge Pedestrian & Cycling Link (Waka Kotahi)
38. Mangere Cycleways (Airport Access) (AT)
39. Projects Supporting Auckland Housing Programme (Mangere) (AT)
40. Smales Allens Road Widening and Intersection Upgrade (AT)
41. Wiri to Quay Park (KiwiRail/NZUP)
42. Network Performance - East Tamaki Road/Ormiston Road/Preston Road (AT)
43. Airport to Botany Stage 2 Bus Improvements (AT)
44. Ormiston Town Centre Link (AT)
45. Projects Supporting Auckland Housing Programme (Northcote) (AT)
46. Mill Road Safety Improvements and Local Infrastructure Investment in Drury Network (Waka Kotahi/NZUP)
47. Safety Programme - Manurewa (Coxhead Quadrant) (AT)
48. Safety Programme - Popes Porchester Intersection (AT)
49. Papakura Rail Station Park and Ride (AT)
50. State Highway 1 Papakura to Drury South Stage One (Waka Kotahi/NZUP)
51. Drury Stations (KiwiRail / NZUP)
52. Drury Local Road Improvements (AT)
53. Papakura to Pukekohe Electrification (KiwiRail/NZUP)
54. Network Performance - Pukekohe Dual Signals (Manukau / Massey / King / Stadium and East / Stadium) (AT)
55. Safety Programme – Waiuku Road corridor (Colombo Road to Domain Road) (AT)
56. Downtown Crossover Bus Facilities (AT)
57. Wynyard Quarter Integrated Road Programme (AT)
58. Safety Programme – Fanshawe Street (AT)
59. Safety Programme – Hobson Street / Nelson Street (AT)
60. State Highway Optimisation Programme - The Strand Special Vehicle Lane (Waka Kotahi)
61. Midtown Bus Improvements (AT)
62. Albert and Vincent Street Bus Priority Improvements (AT)
63. City Rail Link (CRLL) and CRL Road Side Projects (AT)
64. Safety Programme – Glenfield Road (AT)
65. Safety Programme – Onewa Road (AT)
66. Carrington Road Improvements (AT)
67. Safety Programme – Ash Street and Rata Street (AT)
68. Safety Programme – Mt Albert Road (AT)
69. Safety Programme – Atkinson Avenue (AT)
70. Safety Programme – Takanini School Road / Manuroa Road Intersection (AT)
71. CRL Day One – Level Crossing Removal (AT)
72. Downtown Ferry Basin Redevelopment (AT)
73. Waiheke 10 Year Transport Plan (AT)
74. Tamaki Drive / Ngapipi Road safety improvements (AT)
75. Hill Street Intersection Improvement (AT)
76. Wolverton Culverts (AT)
77. Scott Point Repayment (AT)
78. Safety Programme – Residential Speed Management (AT)
79. Projects Supporting Auckland Housing Programme (Oranga) (AT)

08. Measuring outcomes

This section outlines the expected results from implementing the RLTP, alongside what's considered needed but requires additional funding or policy tools. Results are reported using AT's Future Connect 2031 Indicators of Success.

These Indicators of Success will be used to show progress against the outcomes sought from this RLTP. Regular monitoring and reporting to the RTC will be undertaken to assess implementation of the RLTP, in accordance with section 16(6)(e) of the Land Transport Management Act.

The forecasts and targets outlined in the tables below have been developed using a range of modelled and real world data sources. Where modelling results have been used, these have come from Auckland Forecasting Centre's Macro Strategic Model (MSM).

Not all indicators presented here can be measured directly. For those that cannot be measured directly, we will look to develop suitable proxies to measure performance.

Travel choices

MEASURE	2031 INDICATORS OF SUCCESS	
	RESULTS FROM THIS RLTP	WHAT'S NEEDED BUT REQUIRES ADDITIONAL POLICY AND / OR FUNDING
Provide and accelerate better travel choices for Aucklanders		
Strategic Indicator: Share of Auckland growth in trips taken up by public and active modes (morning peak)	64%	100%
Total Auckland public transport boardings	154m	200m
Number of Auckland cycle movements past selected count sites	6.56m	8.11m
Overall Vehicle Kilometres Travelled (VKT) for Auckland	Increasing in line with population growth	Holding steady at 2018 baseline (15.4 annual billion-kilometre)

Glen Innes to Tāmaki Drive Shared Path

Public and active transport

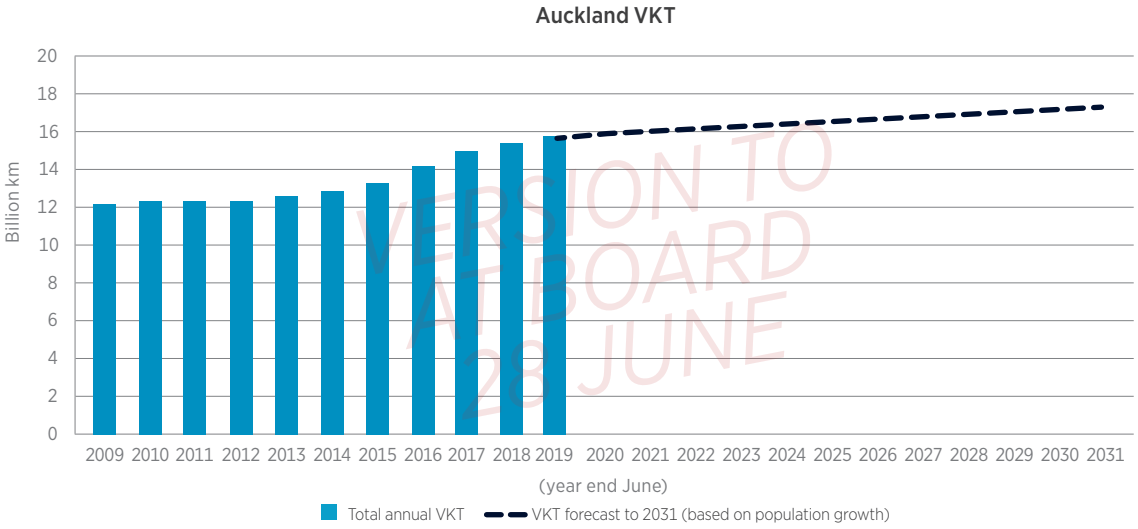
The significant investment in public transport and active modes outlined in the RLTP is forecast by our transport model to increase the combined AM peak mode share from 23 percent in 2016 to 29 percent in 2031. This change means that active and public transport will effectively absorb around 64 percent of the growth in morning peak trips between 2016 and 2031.

By 2031, public transport boardings are expected to reach 154 million per annum[16] which represents a 49 percent increase on the 103.6 million achieved in February 2020. Within this, rail patronage will double to around 40 million passengers per year as a result of the opening of the CRL, Papakura to Pukekohe electrification, new Drury stations, increased train frequencies and more passenger capacity. The more modest increase for the bus and ferry networks reflects the constrained operating funding environment which will limit the number of new services that AT can deliver over the next decade.

The take-up of cycling is expected to continue increasing as a result of the roll out of new and improved cycling infrastructure. Major new walking and cycling corridors planned in this RLTP include the Northern Pathway, Glen Innes to Tāmaki Drive Shared Path, completion of the Urban Cycleways Programme and new arterial cycleways delivered through the Connected Communities programme. By 2031, it is expected that 6.56 million cyclists will be passing AT's nominated cycle count sites each year. This represents growth of around 80 percent over the 3.7 million figure recorded during 2020.

Vehicle Kilometres Travelled (VKT)

The RLTP investment package is forecast to see public transport's share of motorised distance travelled increase from 12 percent to 20 percent in the morning peak, and from five percent to 10 percent in the inter-peak period. Nevertheless, private vehicle trips are still forecast to increase and, when combined with an increase in average vehicle trip distance, total VKT between 2016 and 2031 increases roughly in line with the expected 22 percent increase in population.



[16] This forecast is less than 2031 boardings result estimated by the MSM regional strategic model. The 154 million boardings forecast here has been developed using real world information and better reflects factors such as budget limitations, public transport network development, and the effect of unexpected events such as Covid-19.

Measuring outcomes cont.

Climate change and the environment

MEASURE	2031 INDICATORS OF SUCCESS	
	RESULTS FROM THIS RLTP	WHAT'S NEEDED BUT REQUIRES ADDITIONAL POLICY AND / OR FUNDING
Improve the resilience and sustainability of the transport system and significantly reduce the GHG emissions it generates		
Strategic indicator: Auckland GHG emissions (for land transport purposes)	1% – 12% reduction in emissions compared to 2016 when additional policy initiatives are included	50% reduction in emissions compared to 2016 (requires very strong policy interventions)
GHG emissions from AT's corporate activities, facilities and trains	50% reduction from 2018 baseline	Above 50% reduction from 2018 baseline
Proportion of AT buses that are electric	50%*	100%
Runoff from the busiest local roads impacting high quality receiving environments	Runoff from 30% of the busiest roads in Auckland is treated	Runoff from 50% of the busiest roads in Auckland is treated

* Requires government support

GHG emissions

Our transport modelling forecasts that Auckland's per capita transport emissions will reduce by 13 percent between 2016 and 2031. However, the 22 percent increase in population over the same period means that the region's total emissions are expected to increase by six percent between 2016 and 2031.

In addition to these two factors, the Government has committed to its Clean Car policy and a shift to biofuels. These are expected to yield a cumulative reduction of one to two megatonnes of CO2, over the next decade. This is equivalent to around seven percent[17] of annual emissions in 2031.

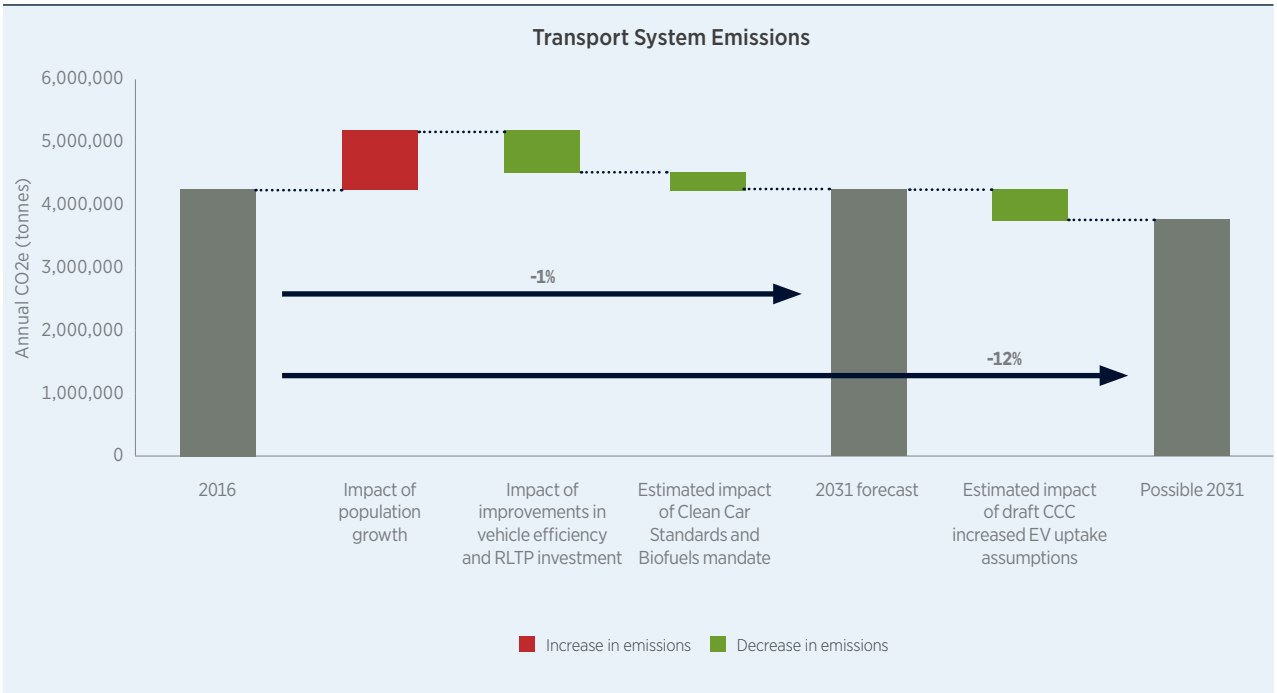
The overall impact of these three factors is forecast to be a reduction in transport GHG emissions of around one percent from 2016 to 2031.

The above figures are based on a comparison with the 2016 base year. The results therefore include the impact of projects, including the significant investment in the Western Ring Route, and population growth between 2016 and 2021 which are outside the scope of the 2021 GPS. Accounting for the impact of population growth, improvements in fleet efficiency, the impact of announced government interventions and the strong emphasis on public transport and active modes in the RLTP from 2021 onwards, we are confident of an absolute reduction in emissions between 2021 and 2031. This reduction is estimated to be in the order of five percent.

The impact of wider policy settings

The above projection does not take the following additional policy interventions into account, including the Climate Change Commission's proposed measures to accelerate the take-up of EVs which, if implemented and based on the Commission's figures, are estimated to result in a further annual transport emissions reduction of up to 12 percent in 2031. This occurs despite the significant increase in demand associated with population growth. However, it is critical to emphasise that the rate of reduction in emissions depends in particular on measures to accelerate the take-up of EVs within the fleet. In this respect, central government announced the Clean Car Package to incentivise the uptake of low emission vehicles, although the projections in this RLTP for GHG reductions do not include the impacts of this recently announced package.

[17] This is based on the middle of the range of the 1-2 megatonne range



This does not meet Auckland Council's Climate Action Plan target for 2031, which requires a 50 percent reduction in regional emissions.

Beyond 2031, the reduction in emissions is expected to accelerate significantly as more of the vehicle fleet transitions to EVs.

Additional investment and measures to achieve the Climate Change Commission and Auckland Council's emission reduction targets

The Climate Change Commission's 2021 Draft Advice for Consultation has set out the mode shift changes needed as part of its proposed route to transport emissions reduction. These are:

- A 25 percent increase in the share of distance travelled by walking
- A 95 percent increase in the share of distance travelled by cycling
- A 120 percent increase in the share of distance travelled by public transport.

Our modelling and estimates indicate the RLTP package is likely to broadly achieve the level of change the Climate Change Commission proposes for walking and cycling. However, the 80 percent increase in the share of distance travelled by public transport is less than the 120 percent increase proposed by the Climate Change Commission. Achieving this level of impact would require a substantial acceleration of investment in rapid transit projects across Auckland, including bringing forward completion of the CC2M project, the full A2B project and the final Northwest Rapid Transit project. A significant increase in public transport services would also be required.

Meanwhile, meeting Auckland Council's target of a 50 percent reduction in transport emissions by 2031 is much more challenging than the Climate Change Commission's mode shift changes. Because the adoption of EVs cannot happen quickly enough to deliver the required reductions by 2031, meeting the Council's target would require very strong interventions to reduce demand for private vehicle travel. Potential examples include road pricing schemes that would dramatically increase the cost of driving. While such an approach would achieve climate outcomes, perverse social, cultural and economic outcomes would also be expected under settings this strong.

Stormwater runoff

In addition to GHG emissions, the transport system also produces harmful pollutants that collect on road surfaces and are washed away in stormwater. AT has a goal of treating run off on 30 percent of Auckland's busiest roads by 2031.

Measuring outcomes cont.

Safety

MEASURE	2031 INDICATORS OF SUCCESS	
	RESULTS FROM THIS RLTP	WHAT'S NEEDED BUT REQUIRES ADDITIONAL POLICY AND / OR FUNDING
Make Auckland's transport system safe by eliminating harm to people		
Strategic indicator: Deaths and serious injuries (DSI) on the Auckland transport network	67% reduction (baseline 2016-18 average annual DSI)	80% reduction (baseline 2016-18 average annual DSI)
DSI of people walking, riding a bike or motorcycle on the Auckland transport network	67% reduction or no more than 106 vulnerable road user DSI (baseline 2016-18 annual average)	80% reduction or no more than 64 vulnerable road user DSI (baseline 2016-2018 annual average)

The Safety Programme delivered under this RLTP is expected to prevent over 1,760 DSI during the next 10 years and deliver a 67 percent reduction in annual DSI by 2031. This result is in line with the Vision Zero for Tāmaki Makaurau Transport Safety Strategy.

The safety programme will upgrade large parts of the network, including high-risk corridors and intersections. There will be a focus on vulnerable road users, including pedestrians, cyclists and motorcyclists, to ensure their safety is equally improved as part of the programme.

Access and connectivity

MEASURE	2031 INDICATORS OF SUCCESS	
	RESULTS FROM THIS RLTP	WHAT'S NEEDED BUT REQUIRES ADDITIONAL POLICY AND / OR FUNDING
Better connect people, places, goods and services		
Strategic indicator: Number of jobs Aucklanders can connect to within an acceptable time (30 min by car, 45 min by public transport)* *Proxy for connections to other activities	**Car:** Connections to jobs increase by 14% **PT:** Connections to jobs increase by 60% **S/W/Rural:** Connections increase at roughly the same rate as the rest of the region	**Car:** Connections to jobs increase in line with growth in labour force (18%) **PT:** Double the number of jobs available (100%) **S/W/Rural:** Connections from these areas increase at a faster rate than average
Proportion of the Auckland freight network operating at LOS C or better (inter-peak)	90%	100%
Proportion of time spent in congested conditions (Level of Service F) (morning/inter-peak)	36% morning 10% inter-peak	Hold to 2016 levels: 32% morning 6% inter-peak
Average travel speeds on Auckland Frequent Transit Network (FTN) (morning peak)	39 km/h	45 km/h

Access to jobs

One of the benefits of living in a large and growing city is having access to an increasing number of jobs within a reasonable commuting distance from home. Similarly, for businesses there are benefits from having ready access to an increasing number of potential employees close to their place of business.

This is measured by estimating the average number of jobs accessible to Aucklanders in the morning peak within a 30 minute car trip, or 45 minute public transport trip.

- Accessibility by car: In 2016 the average Aucklander had access to 234,000 jobs within a 30 minute car trip. This is forecast to increase by 14 percent to 266,000 by 2031.
- Accessibility by public transport: In 2016 the average Aucklander had access to 68,000 jobs within a 45 minute public transport trip. This is forecast to increase by 60 percent to 108,000 by 2031.

Levels of service and congestion

A key challenge for Auckland is holding congestion steady while the city grows, enabling freight and business travel to continue without facing additional delay and disruption. Transport modelling indicates that witin the timeframes of this RLTP, we would expect to see the time spent in congestion during the morning peak increase by around 10 percent between 2016 and 2031; from 32.5 percent to 35.7 percent. During the interpeak, the increase is from six percent to 10 percent. Within this, congestion is projected to increase more rapidly on the motorway network while staying relatively constant on the arterial network.

Policy initiatives – The Congestion Question

Further improvements in congestion, accessibility and travel speeds could be delivered via the introduction of a congestion pricing scheme in Auckland. The Congestion Question project (TCQ) has found that the opportunity exists for Auckland to benefit from a sustainable eight percent to 12 percent improvement in network performance once a full congestion pricing scheme becomes operational.

Measuring outcomes cont.

Growth

MEASURE	2031 INDICATORS OF SUCCESS	
	RESULTS FROM THIS RLTP	WHAT'S NEEDED BUT REQUIRES ADDITIONAL POLICY AND / OR FUNDING
Enable and support Auckland's growth through a focus on intensification in brownfield areas, with some managed expansion into emerging greenfield areas		
Strategic indicator: Proportion of Auckland population serviced by public transport within 500m of rapid and/ or frequent network stops	42%	55%
Auckland Spatial Priority Areas (greenfield and brownfield) are provided with adequate infrastructure* to support the development of the land *To support form and function whilst encouraging sustainable travel behaviour and minimising potential negative impacts on wider transport system	9 priority areas supported	All priority areas supported

Rapid and frequent network coverage

Thirty nine percent of Aucklanders who are currently served by the public transport system live within 500 metres of a stop on the rapid or frequent public transport networks. This is expected to grow to 42 percent by 2031.

Further increases depend on the provision of additional operating funding so that frequencies can be improved and additional services can be added to the network, or the delivery of additional infrastructure (such as CC2M light rail).

Spatial Priority Areas

Transport also has a critical role in supporting and enabling regional growth. Growth is occurring across the region, and there is pressure to invest simultaneously in a number of different locations.

Auckland's highest spatial priorities for transport growth investment have been identified through the cross-agency ATAP process. The RLTP supports development in the following nine priority areas:

- Northwest
- Northcote
- City centre
- CRL Stations
- Mount Roskill
- Oranga
- Tāmaki
- Mangere
- Drury.

Asset management

MEASURE	2031 INDICATORS OF SUCCESS	
	RESULTS FROM THIS RLTP	WHAT'S NEEDED BUT REQUIRES ADDITIONAL POLICY AND / OR FUNDING
Sound asset management		
Proportion of overall road assets in acceptable condition	95%	97%
Road maintenance standards (ride quality) as measured by smooth travel exposure for urban and rural roads	• 92% rural • 81% urban • NB. At 2018 RLTP funding	• 96% rural • 90% urban • NB. At higher funding
Average age of road pavement base rehabilitated	• <60 yr arterials • <90 yr collectors • >200 yr locals*	• 40 yr (expected useful life) arterials/Strategic Networks • <90 yr collectors • >200 yr locals*
	*Aim to preserve base as long as possible by keeping surface in good condition	
Average age of road pavement surface resealed	• 15 yr arterials • 19 yr collectors • 22 yr locals	• 15 yr arterials/Strategic Networks • 18 yr collectors • 18 yr locals
	*Aim to preserve base as long as possible by keeping surface in good condition	
Proportion of footpaths in acceptable condition	95% very good* to moderate	98% very good* to moderate
	*Very good condition: As new condition or sound physical condition. Asset likely to perform adequately without major work for 10-15 years or more. No physical maintenance required. Visually excellent.	

This RLTP includes a significantly enhanced renewal programme compared to 2018. The programme ensures that network condition remains stable over the next 10 years, with the vast majority of assets remaining in very good, good and moderate condition.

A minimal amount of assets will be allowed to fall into poor or very poor condition before being renewed or replaced. Reductions in maintenance and renewal spend result in lower levels of service (e.g. more potholes and cracked footpaths), longer timeframes before assets are renewed and ultimately increase the risk of assets failing. The recommended investment programme is designed to ensure that assets are managed in a way that promote public safety, reduce the risk of asset failure, and maintain adequate levels of service.

09.
Inter-regional priorities

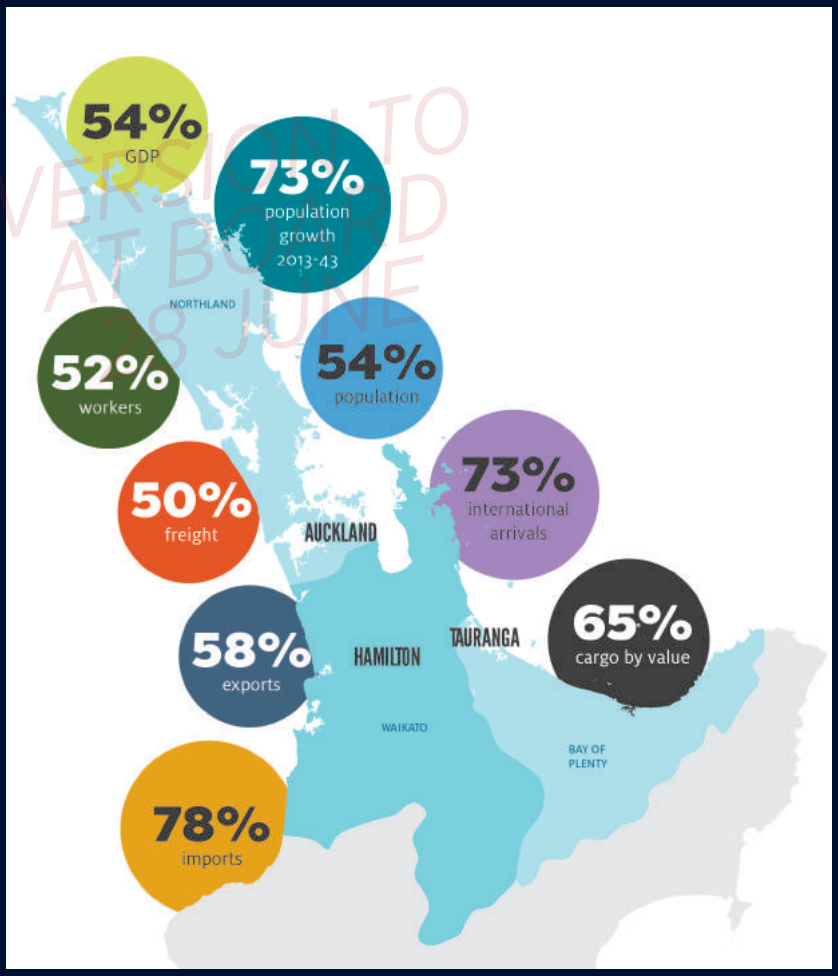
Providing a strong inter-modal network that supports economic growth and investor confidence is critical for New Zealand. Auckland's inter-regional transport connections to Northland, Waikato and Bay of Plenty are particularly important to the national economy, with the Upper North Island accomodating more than 50 percent of New Zealand's population.

The Upper North Island Strategic Alliance (UNISA) brings together the Auckland Council, Bay of Plenty Regional Council, Northland Regional Council, Waikato Regional Council, Hamilton City Council, Tauranga City Council and Whangārei District Council to collaborate on a range of inter-regional and inter-metropolitan issues. The following statement prepared for UNISA outlines the issues and priorities for transport for the Upper North Island.

Why the Upper North Island is important

The Upper North Island (UNI) is critical to the social and economic success of New Zealand.

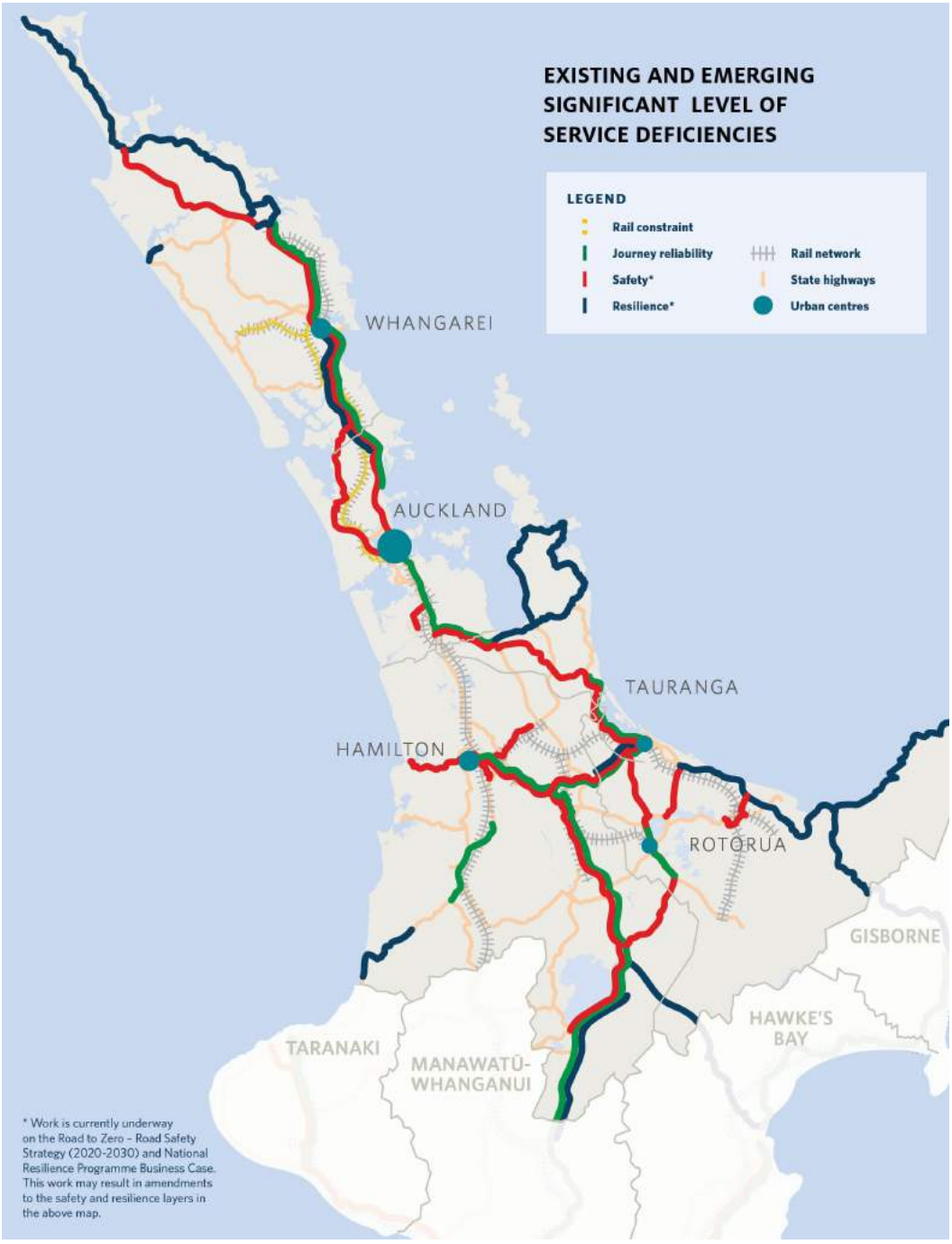
The Auckland, Northland, Waikato and Bay of Plenty regions are responsible for generating more than half of New Zealand's GDP, housing more than half of New Zealand's population and providing for the movement of more than half of New Zealand's freight.



Growth in the UNI has increased more rapidly than for the rest of the country and that is predicted to continue. This growth has many benefits for the country, but it brings with it a range of challenges that local and central government agencies need to work on together to resolve.

The role of transport

Transport is an important enabler of social, economic and environmental outcomes. The UNI contains vital transport networks and acts as New Zealand's gateway to the world, with the Ports of Auckland, Tauranga and Northport exporting and importing the majority of New Zealand's goods. These ports are served by a developing network of inter-modal inland ports and freight hubs, which support the efficient transfer of goods between producers and consumers.



Source: Waka Kotahi Arataki version

Wider road and rail infrastructure networks connect key growth areas, ports and freight hubs, and support the majority of national economic activity. These networks not only provide for the movement of people, and exchange of goods and services, they also facilitate improvements in accessibility, both inter-regionally, regionally and sub-regionally.

Ensuring a safe, efficient and sustainable transport network is critical for the Upper North Island to achieve the desired social and economic outcomes, and for New Zealand to continue to compete internationally.

Why collaboration is important

The inter-dependencies between regions, most evident in shared transport networks, means that the ongoing success of the UNI requires key decision-makers to work together, sharing and coordinating information and understanding wider strategic priorities in planning and investment processes. A collaborative, forward-thinking approach to infrastructure planning and investment across the UNI is required to ensure freight supply chains, and strategic road and rail corridors continue to perform well into the future.

Inter-regional priorities cont.

Shared priorities

In developing the respective UNI Regional Land Transport Plans, the regions have collaborated to better understand the UNI strategic context, issues and opportunities relevant to the transport network, and identified the following shared priority areas of focus:

- Managing the transport implications of population growth and land use change
- Improving the efficiency and reliability of freight movements
- Improving the safety of road users across the network, particularly in high-risk areas.

These areas benefit the most from an aligned UNI approach as they require multi-agency attention, have a prevalence of cross-boundary journeys, and are key contributors to the significance of the UNI to New Zealand. While the shared priorities are developed at a UNI scale, sub-regional and regional priorities continue to provide specific areas of focus for regions within the UNI, for example the importance of ensuring a resilient transport network within areas prone to disruption.

A shared priority work programme is helping to improve and better coordinate the regional delivery and response to UNI significant issues, determined through RLTPs. It is essential that this commitment to collaboration continues and develops even further to maximise UNI social and economic outcomes.

Strategic areas of focus for the Upper North Island 2021-2031

Whangārei to Auckland (SH1 and Rail)	Strategic road and rail corridors to deliver safe and reliable journeys between Auckland and Whangārei. This includes delivering SH1 Whangārei to Port Marsden project through the NZUP and to consider further options to increase transport choice between Whangārei and Northport and investigate opportunities for additional improvements between Port Marsden Highway and Te Hana.
Auckland Urban Road	Support inter-regional movement of people and goods to key hubs, through improved journey time reliability into and through urban Auckland, supported by mode shift and delivery of the ATAP and the NZUP.
Auckland Urban Rail	Enable an increased role for rail in and through Auckland to support the movement of freight across the UNI, and personal travel between Waikato and Auckland. This includes delivering the Rail Network Investment Programme (RNIP), NZUP (e.g. the third main and the extension of the Auckland Metro electrified rail network from Papakura to Pukekohe) and considering further potential investments subject to revised growth triggers.
Auckland to Tauranga (SH2)	The focus is on improving safety and maximising use of existing infrastructure, including travel demand management and transport choice initiatives to help manage peak demand. Improvements include delivering the Takatimu North Link and Te Puna to Omokoroa projects through the NZUP.
Hamilton to Tauranga (SH1/29 and Rail)	Provide safe and reliable journeys for people and freight on this nationally strategic corridor, including SH1/29 improvements through NZUP and strategic rail network improvements.
Hamilton to Auckland (SH1 and Rail)	Support delivery of growth initiatives through the Hamilton-Auckland Corridor project for both people and freight with multi-modal transport choices along the corridor and within communities and businesses. The initiatives include the Auckland to Hamilton Rapid Rail business case and Hamilton-Waikato Metro Spatial Plan Transport PBC. Improvements to road and rail corridors include completion of the Waikato Expressway and Auckland Southern Corridor improvements.

Inter-regional priorities cont.

Activities of inter-regional significance

The activities within the Auckland region that contribute to the strategic areas of inter-regional significance and focus are listed below.

PROJECT NAME	RESPONSIBLE AGENCY
Ensuring a safe and reliable corridor on SH1 between Auckland and Whangārei • Puhoi – Warkworth • Dome Valley Safety Improvements	Waka Kotahi
Support inter-regional movement of people and goods to key hubs into and through urban Auckland • Southern Corridor Improvements (Manukau to Papakura)[Debt Repayment] • South Auckland Package, including State Highway 1 Papakura to Drury South Stage One • SH1 Drury South to Bombay (Route Protection)	Waka Kotahi
Enable an increased role for rail in and through Auckland to support the movement of freight across the Upper North Island, and personal travel between Waikato and Auckland • Wiri to Quay Park Third Main • Papakura to Pukekohe electrification • Drury Stations	KiwiRail

AT currently runs two bus services that cross the Auckland boundary:

- 398 – Pukekohe to Tuakau
- 399 – Pukekohe to Port Waikato

In July 2021, the 398-bus service will be removed as it is now duplicated by a new one provided entirely by the Waikato Regional Council (route 44 – Pokeno to Pukekohe).

AT and the Waikato Regional Council have agreed to a five-year trial service for the Te Huia passenger rail service between Hamilton and Papakura Station. This service will be funded by the Waikato Regional Council.

Work is also underway to investigate the feasibility of a North Island inter-regional passenger rail service operating on the North Island Main Trunk to facilitate economic growth of regional New Zealand, with a low carbon footprint.


Providing a strong inter-modal network that supports economic growth and investor confidence is critical for New Zealand

10. Funding and expenditure

ATAP 2021 confirms the commitment of Auckland Council and central government to improve the transport outcomes for Auckland. It sets out a transport investment programme for state highways, local roads, public transport, footpaths, cycleways and rail, with sufficient funding from Auckland Council and Government to deliver the programme.

This section sets out the financial forecasts for the RLTP programme, including a summary of the funding sources and the financial forecast of the anticipated revenue and expenditure by each delivery agency on activities for the 10 years from 2021/22 to 2030/31.

Funding sources

The programme set out in this RLTP is funded from a combination of:

- Funding from Auckland Council – sourced from rates, targeted rates, development contributions, and RFT
- The NLTF for State Highways, local roads, public transport, walking and cycling, traffic policing, rail infrastructure and other transport activities approved for funding through the NLTP. The NLTF is sourced from fuel excise duties, road user charges, registration and licensing fees and is administered by Waka Kotahi
- AT's third-party revenue, including public transport fares, advertising, income from land held for future transport needs, and parking and enforcement revenue
- Direct investment from central government, including the NZUP, the Covid-19 Response and Recovery Fund and investment for the CRL.

The share of funding, as set out in ATAP 2021, is shown in the table below. Since ATAP was published, the government has revised the NZUP, with a new total investment for Auckland of $4.3 billion.

SOURCES OF FUNDING	AMOUNT
Auckland Council	
• For Auckland Transport	$8.9 billion
• For City Rail Link Limited	$1.3 billion
Central Government	
• For City Rail Link Limited	$1.3 billion
• NZ Upgrade Programme	$3.5 billion
• Covid-19 Response and Recovery Fund	$0.1 billion
• National Land Transport Fund	$16.3 billion
TOTAL	$31.4 billion

Funding and expenditure by agency

This section summarises the expected revenue and expenditure for each agency for the period of this RLTP.

Auckland Transport

The table below includes the cost of planning for future improvements. A number of plans, for example the Asset Management Plan, RPTP, and the RLTP itself will require review within the period of this RLTP, including providing input into Auckland Council's 2024-34 LTP and the 2024-27 NLTP. It also includes the cost of new bus, rail and ferry services, including costs relating to new services for the CRL, the low emission bus programme, and the costs of implementing the 'Community Connect' Public Transport Concession Card Trial.

AUCKLAND TRANSPORT OPERATING REVENUE AND EXPENDITURE

AT	CATEGORY	2021/22 ($ MILLION)	2022/23 ($ MILLION)	2023/24 ($ MILLION)	2024/25 – 2030/31 ($ MILLION)	TOTAL ($ MILLION)
Funding sources	Auckland Council Funding	380	364	368	2,889	4,001
	Waka Kotahi Subsidy	368	370	358	2,755	3,851
	Other Operating Revenue	334	362	415	3,648	4,758
	TOTAL FUNDING	**1,082**	**1,096**	**1,141**	**9,291**	**12,610**
Operational expenditure	Roads and footpaths	163	169	180	1,492	2,004
	Public Transport	883	891	925	7,545	10,244
TOTAL EXPENDITURE		**1,046**	**1,060**	**1,105**	**9,038**	**12,248**
Interest and Principal Repayments for EMUs		36	36	36	254	362

Funding and expenditure cont.

AT capital revenue and expenditure

The table below shows AT's capital funding and expenditure for this RLTP. Programme detail is provided in Appendix 1.

AT	CATEGORY	2021/22 ($ MILLION)	2022/23 ($ MILLION)	2023/24 ($ MILLION)	2024/25 – 2030/31 ($ MILLION)	TOTAL ($ MILLION)
Funding sources	Auckland Council	404	482	546	4,018	5,450
	NLTF	406	499	620	4,355	5,880
	Covid-19 Response and Recovery Fund	10	13	20	–	43
	TOTAL FUNDING	**820**	**994**	**1,186**	**8,373**	**11,373**
Capital expenditure	Renewals	234	253	322	3,122	3,931
	Capital improvements – Base	572	716	809	4,946	7,043
	Capital improvements – Full Funding sought from NLTF	14	25	55	305	399
	TOTAL EXPENDITURE	**820**	**994**	**1,186**	**8,373**	**11,373**

The dollars in the RLTP tables for the capital programme are for the whole organisation, including activities not eligible for NLTF funding.

Other projects in ATAP in addition to AT's capital programme

ATAP has included four projects that would be delivered partly or fully by AT, but where funding sources are still to be determined. These projects are shown in the Appendix and are for rail level crossings closures, including level crossings needed to support the increased rail frequency resulting from the CRL, School Speed Management, and implementation of Community Connect. Level crossings will be delivered in partnership with KiwiRail.

The assumption made for this RLTP is that these projects are fully funded from the NLTF or other sources within central government.

AT is discussing an agreed forward funding mechanism with the government for the investment required to support the Auckland Housing Programme (AHP). If this forward funding is available, AT will be able to accelerate the programme from the timing that is shown in this RLTP. Also, the government has signalled that it will contribute $100 million for transport works to support the AHP, in addition to the $401 million shown in this RLTP.

Finally, feedback on the draft RLTP from the community and local boards identified the deficiencies of the Dairy Flat Highway/The Avenue intersection, and the need for greater investment in new footpaths. AT therefore proposes that, should it have additional funding, it will deliver improvements at the Dairy Flat Highway/The Avenue intersection (with an estimated cost of $12.5 million uninflated), and additional investment in footpaths of $20 million.

AT's priorities for delivery in 2021-2024

AT will prioritise the following projects for delivery in the first three years of this RLTP:

- Projects that are under construction, are committed or have tagged funding, which determine the timing of these projects in the first three years of the RLTP.
- Projects that are required to maintain existing levels of service and appropriately maintain existing assets, for example, AT's asset renewals programme.
- Projects that are necessary to get the full benefit from existing or committed new investments, for example, electric trains to successfully operate the rail timetable once the CRL is open.
- Projects and programmes that have commenced but have not been delivered in full. Examples are the Connected Communities and Urban Cycleways programmes.
- Key programmes that provide a reasonable 'baseline' level of investment. Base levels of investment in safety, bus priority, cycling and optimisation programmes have been determined through business case processes and were considered unlikely to change, regardless of the weight placed on different ATAP objectives.

In most cases, these projects are judged by ATAP to be 'Committed or Essential', with very limited discretion to be removed from the programme.

Three-year priorities if funding does not materialise

As described earlier, AT's capital programme within this RLTP is based on the investment programme set out in ATAP 2021. ATAP recognises that changes to some current funding settings are required to ensure the package can be fully delivered. Funding for AT's capital programme in this RLTP is based on the funding levels in Auckland Council's LTP, including an assumption that level crossings, and a number of other projects to be delivered by AT, are fully funded from the NLTF.

However, there are risks around the level of funding from both Auckland Council and Waka Kotahi. If funding was lower in the 2021-2024 period than that planned here, the following sets out the approach that AT would take to prioritise its programme:

- Category Three projects (those judged by ATAP to be discretionary) would be deferred first. AT's intention would be to deliver these projects within the 10-year period if sufficient funding because available.
- If required due to even lower capital funding, AT would then consider deferring Category Two projects. Again, AT would try to defer these projects until later in the 10-year period, and would seek to deliver them when sufficient funding becomes available. The RFT-enabled projects in Category Two would still be delivered by 2028 according to the requirements of the RFT Scheme.
- If funding was so low within the three-year period as to require AT to defer Category One projects (those considered 'Committed or Essential' by ATAP) AT would look to defer any project or element of a programme that had discretion around its timing, with the intention that it was still delivered within the 10-year RLTP period.

Funding and expenditure cont.

Waka Kotahi NZ Transport Agency

The table below sets out Waka Kotahi's investment programme for this RLTP. Programme detail is provided in Appendix 2.

WAKA KOTAHI	CATEGORY	2021/22 ($ MILLION)	2022/23 ($ MILLION)	2023/24 ($ MILLION)	2024/25 – 2030/31 ($ MILLION)	TOTAL ($ MILLION)
Funding sources	NLTF	625	645	522	3,995	5,787
Expenditure	Maintenance, Operations and Renewals	199	203	206	1,254	1,862
	Other State Highway Projects	426	442	316	2,741	3,925

This table does not include the costs of the NZUP projects. See page 96.

KiwiRail

KiwiRail's expenditure and funding are shown in the table below. Capital programme detail is provided in Appendix 3.

KiwiRail has been receiving funding, via AT, from the transitional rail activity class for a programme of catch-up renewals. As the transitional rail activity class will cease at the end of the current NLTP period, this project will be moved to the new public transport activity class.

The improvement projects KiwiRail will include in the RNIP, and seek funding for from the public transport activity class, have been included in the Appendix.

The existing funding mechanisms for determining and apporting the maintenance and operational costs for the Auckland rail network using the network access agreement has not changed. The network access agreement process involves negotiating:

- The level of access for Metro services to the Auckland network
- The level of maintenance and renewals for the network
- How costs associated with the networks are apportioned.

KiwiRail will meet its share of this cost of maintenance through the RNIP from the rail network activity class, while AT will continue to meet its share from Auckland Council funding, fares, and the NLTP.

KIWIRAIL	CATEGORY	2021/22 ($ MILLION)	2022/23 ($ MILLION)	2023/24 ($ MILLION)	2024/25 – 2030/31 ($ MILLION)	TOTAL ($ MILLION)
Funding sources	NLTF	98	100	96	178	472
Expenditure	Rail infrastructure projects	98	100	96	178	472

This table does not include the costs of the NZUP projects. See page 96.

New Zealand Upgrade Programme

On 4 June 2021, the Government announced a revised NZUP programme, with an investment programme of $4.3 billion for Auckland compared to the $3.5 billion in January 2020. The following table shows the programmes and delivery agencies for this revised programme.

NZ UPGRADE PROGRAMME			
PROJECT	DELIVERY AGENT	PROJECT DESCRIPTION	COST ($ MILLION)
Northern Pathway	Waka Kotahi	A fully separated pathway between Westhaven and Akoranga, including Te Ara Pae Moana (harbour bridge component) and land component between Sulphur Beach Reserve and Akoranga.	785
Penlink	Waka Kotahi	A new two lane toll road between SH1 and Whangaparāoa Peninsula. A separated, shared walking and cycling lane adjacent to the new State Highway will provide travel choice for those living in or visiting the peninsula. Penlink will also support safer and more reliable public transport services to and from the peninsula.	830
SOUTH AUCKLAND PACKAGE			
Wiri to Quay Park	KiwiRail	Works to add a third rail line between Wiri and Westfield, along with associated junction improvements, to increase rail capacity between Wiri and Quay Park, reducing congestion for both passenger and freight services.	318
Papakura to Pukekohe Electrification	KiwiRail	Electrification of the track between Papakura and Pukekohe to allow electric services at up to six trains per hour in each direction.	375
Drury Stations	KiwiRail	Funding for three new railway stations in Drury (two) and Paerata.	495
State Highway 1 Papakura to Drury South Stage One	Waka Kotahi	Improvements on SH1 from Papakura to Drury, widening the highway to three lanes in each direction to provide better travel time reliability, and adding a shared path.	655
Mill Road safety improvements and local infrastructure investment in Drury network	Waka Kotahi	A two-lane upgrade to Mill Road between Flat Bush and Alfriston tying into the existing urban Redoubt Road dynamic lanes. There will also be targeted safety improvements between Alfriston and Papakura. Transport upgrades to release housing and local centres in Drury in a way that supports the government's decarbonisation goals. The projects to be considered will include regional cycleways, arterial corridors that provide direct walking, cycling and/or bus access to stations and projects within or crossing state highway corridors to help release additional housing in Drury West.	874*
TOTAL			**4,332**

* The costs for this package of works are not baselined and further work is required to understand scope, schedule and cost.

Funding and expenditure cont.

City Rail Link Limited

City Rail Link Limited (CRLL) is funded jointly by Auckland Council and central government to deliver the CRL. The funding and expenditure is set out in the table below.

CRLL	CATEGORY	2021/22 ($ MILLION)	2022/23 ($ MILLION)	2023/24 ($ MILLION)	2024/25 – 2030/31 ($ MILLION)	TOTAL ($ MILLION)
Funding sources	Auckland Council	572	476	162	95	1,305
	Central Government	585	439	183	89	1,295
	TOTAL FUNDING	**1,157**	**915**	**345**	**184**	**2,600**
Expenditure	City Rail Link	1,157	915	345	184	2,600

The costs above relate to the construction of the CRL. Responsibility for operating the stations and running rail services after completion is transfered to AT once the CRL is opened. Revenues and costs for these are included in AT's forecasts.

Department of Conservation

The table below shows the Department of Conservation (DOC) activities for special purpose roads included in this RLTP. Programme detail is provided in Appendix 5. Funding for these activities will come from DOC and the NLTF.

DOC	CATEGORY	2021/22 ($ THOUSAND)	2022/23 ($ THOUSAND)	2023/24 ($ THOUSAND)	2024/25 – 2030/31 ($ THOUSAND)	TOTAL ($ THOUSAND)
Funding sources	NLTF	26	26	126	534	711
Expenditure	Local Road Maintenance and Improvements	26	26	126	534	711

Auckland Council

Auckland Council will receive funding from the Covid-19 Response and Recovery Fund for the Te Whau Pathway, as set out in the table below.

AUCKLAND COUNCIL	CATEGORY	2021/22 ($ MILLION)	2022/23 ($ MILLION)	2023/24 ($ MILLION)	2024/25 – 2030/31 ($ MILLION)	TOTAL ($ MILLION)
Funding sources	Covid-19 Response and Recovery Fund	14	12	4	–	30
Expenditure	Te Whau Pathway	14	12	4	–	30

Funding of $35 million has been allocated from the Covid-19 Response and Recovery Fund. Auckland Council anticipates incurring some expenditure in 2020/21, leaving $30 million to be incurred from 2021 onwards.

Artist rendering of the CRL Aotea Station

11. Appendices

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Appendix 1 **Auckland Transport Capital Programme**

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Project Name	Project Description	Category	Funding source	Duration	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28 – 2030/31	10-year total
TRAVEL CHOICES: PUBLIC TRANSPORT									**$ MILLIONS**			
RAPID TRANSIT: RAIL PROJECTS												
EMU Rolling Stock Current Tranche	Final payments for current tranche EMUs to allow electric rail services to be extended to Pukekohe and to provide additional capacity on the rail network.	1	Local Share and NLTF	2021/22	5.0	0.0	0.0	0.0	0.0	0.0	0.0	**5.0**
EMU Rolling Stock and Stabling Tranche for CRL	Purchase of additional new EMUs, as well as provision of stabling, maintenance and cleaning facilities, and additional traction feed to Wiri to maximise benefits of CRL.	1	Local Share and NLTF RFT	2021/22 - 2025/26	15.0	53.6	115.0	177.5	51.4	0.0	0.0	**412.5**
CRL Day One - Level Crossing Removal	Programme of high priority new grade separated crossings currently planned for Taka Street and Walters Road, closure of Spartan and Manuroa level crossings, and walking and cycling upgrades on Walters Road. Also includes planned grade separation at Church Street East and pedestrian crossing grade separation.	1	NLTF	2021/22 - 2026/27	5.0	20.0	50.0	30.0	70.0	45.0	0.0	**220.0**
Papakura Rail Station Park and Ride	Delivery of a new facility on the site of the existing Papakura Park and Ride, to increase patronage on the rail network.	1	Local Share and NLTF	2021/22 - 2024/25	0.2	0.8	2.6	6.4	0.0	0.0	0.0	**9.9**
CRL Road Side Projects	Road-side projects at Wellesley St, Pitt St, and Mt Eden Road to support CRL Stations.	1	Local Share and NLTF	2022/23 - 2023/24	0.0	0.9	6.4	0.0	0.0	0.0	0.0	**7.3**
Level Crossings Removal - Group 2	Programme of works to address rail level crossing issues, either through road closures or grade separation.	3	NLTF	2027/28 - 2030/31	0.0	0.0	0.0	0.0	0.0	0.0	100.0	**100.0**
RAPID TRANSIT: BUS PROJECTS												
Eastern Busway Stage 1	Completion of the signalised Panmure Roundabout accommodating bus priority, a new two-lane busway, pedestrian and cyclist facilities from the roundabout to Pakuranga Road/Ti Rakau Road intersection, a new one-lane each way Panmure Bridge and upgrades to the existing bridge.	1	Local Share and NLTF	2021/22	7.5	0.0	0.0	0.0	0.0	0.0	0.0	**7.5**
Eastern Busway Stages 2 to 4	Completion of the Rapid Transit Busway, including the Reeves Road flyover, new bus interchanges at Pakuranga and Botany and associated safety and cycling works which will create faster, more reliable transport options for communities in East and South Auckland.	1	Local Share and NLTF RFT	2021/22 - 2027/28	70.6	148.5	141.4	132.6	154.8	118.5	100.0	**866.4**
Rosedale and Constellation Bus Stations	A new Rosedale bus station, and improvements to the existing Constellation bus station, associated with the extension of the Northern Busway to Albany.	1	Local Share and NLTF	2021/22 - 2023/24	19.0	22.7	17.3	0.0	0.0	0.0	0.0	**59.0**
Northern Busway Enhancements	This project covers capacity and performance enhancements to Northern Busway Stations.	2	Local Share and NLTF	2027/28 - 2030/31	0.0	0.0	0.0	0.0	0.0	0.0	62.0	**62.0**
BUS PROJECTS												
Connected Communities	Delivery of whole of route bus priority, safety and cycling improvements via the Connected Communities programme.	1	Local Share and NLTF RFT	2021/22 - 2030/31	24.1	33.3	38.8	37.0	57.0	83.0	309.8	**583.0**
Midtown Bus Improvements	Delivery of bus infrastructure in the CBD, including bus priority along Wellesley Street, a new Learning Quarter bus interchange.	1	Local Share and NLTF RFT	2021/22 - 2030/31	3.0	10.3	45.8	0.0	0.0	29.5	43.1	**131.7**
Northwest Bus Improvements	Bus Station at Westgate and interim bus stops at Lincoln Road and Te Atatu motorway interchanges. This will be delivered with part-funding from the COVID Response and Recovery Fund.	1	CRRF and NLTF	2021/22 - 2023/24	20.0	26.0	39.0	0.0	0.0	0.0	0.0	**85.0**[1]
Double Decker Mitigation	Mitigation works to safely allow the passage of double decker buses, addressing risks such as street signage, street furniture, low hanging power or phone lines, overhanging trees and low bridge structures.	1	Local Share and NLTF RFT	2021/22 - 2030/31	2.0	2.0	2.0	5.0	5.0	5.0	8.0	**29.0**
Downtown Crossover Bus Facilities	This project looks to provide an improved solution for buses serving Downtown, specifically enhancing Customs St to become a key bus corridor, and creating two new bus terminals on the Eastern and Western sides of the city centre.	2	Local Share and NLTF RFT	2026/27 - 2030/31	0.0	0.0	0.0	0.0	0.0	4.0	216.0	**220.0**

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[1] This relates to the improvements that will be owned by Auckland Transport. A further $15 million of improvements will be delivered for Waka Kotahi.

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Project Name	Project Description	Category	Funding source	Duration	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28 – 2030/31	10-year total
TRAVEL CHOICES: PUBLIC TRANSPORT									**$ MILLIONS**			
BUS PROJECTS CONTINUED												
Carrington Road Improvements	Provision of intersection improvements, bus lanes and new bus facilities to support the UNITEC precinct redevelopment in Mt Albert.	2	Local Share and NLTF RFT	2026/27 - 2030/31	0.0	0.0	0.0	0.0	0.0	10.7	43.9	**54.6**
Airport to Botany Rapid Transit Route Protection	Notice of Requirement and allocation for early acquisition of land, identified as a necessary component for future Airport to Botany Rapid Transit infrastructure.	2	Local Share and NLTF RFT	2021/22 - 2030/31	5.5	5.5	11.5	6.0	7.0	7.0	7.0	**49.5**
Airport to Botany Stage 2 Bus Improvements	Improved bus infrastructure from Manukau to Botany, to support an extended bus service between the Airport and Botany.	2	Local Share and NLTF RFT	2024/25 - 2026/27	0.0	0.0	0.0	1.0	3.2	25.9	0.0	**30.1**
Sylvia Park Bus Improvements	New bus link and bus station to Sylvia Park with walking and cycling improvements.	2	Local Share and NLTF RFT	2024/25 - 2026/27	0.0	0.0	0.0	0.6	1.6	17.6	0.0	**19.9**
Albert and Vincent Street Bus Priority Improvements	Bus priority measures on Albert and Vincent Streets to improve journey time and reliability between Karangahape Road and Britomart.	2	Local Share and NLTF RFT	2027/28 - 2030/31	0.0	0.0	0.0	0.0	0.0	0.0	8.1	**8.1**
Rosedale Road Corridor	Bus lanes and segregated cycle lanes along the length of Rosedale Road, to coincide with the delivery of Rosedale Station in 2023.	2	Local Share and NLTF RFT	2021/22 - 2023/24	0.6	3.7	3.7	0.0	0.0	0.0	0.0	**8.0**
Neighbourhood Interchanges	Neighbourhood Interchanges are designed to improve connections between bus stops at key strategic locations across the network. This will provide interchange improvements at Glenfield shops, Dominion/Mt Albert Road and Dominion/ Balmoral Road.	2	Local Share and NLTF RFT	2021/22 - 2022/23	3.0	3.1	0.0	0.0	0.0	0.0	0.0	**6.1**
FERRY, MULTI-MODAL, AND PARK AND RIDE												
Public Transport Safety, Security and Amenity	A programme of capital improvements to the Public Transport network. Includes the Parnell Station Underpass.	1	Local Share and NLTF	2021/22 - 2030/31	22.0	20.0	13.0	7.4	7.4	14.9	69.2	**154.0**
Matiatia Park and Ride	Replace and expand existing Matiatia Park and Ride to cater for projected increase in demand to and from Waiheke.	1	Local Share and NLTF RFT	2021/22 - 2025/26	0.1	1.0	1.0	15.9	7.6	0.0	0.0	**25.6**
Community Connect (PT Concession Card Trial)	Provision for setting up the public transport concession card trial for Community Service Card holders.	1	Crown	2021/22	4.0	0.0	0.0	0.0	0.0	0.0	0.0	**4.0**
Downtown Ferry Basin Redevelopment	Completing work on the Downtown Ferry Terminal Development.	1	Local Share and NLTF RFT	2021/22	2.0	0.0	0.0	0.0	0.0	0.0	0.0	**2.0**
Park and Ride Programme	Delivery of new and extended park and ride facilities.	2	Local Share and NLTF RFT	2025/26 - 2030/31	0.0	0.0	0.0	0.0	11.0	20.0	20.0	**51.0**
Accessibility Improvement Project	A programme of retrofits to public transport stops, stations, interchanges and terminals to improve access for people with disabilities or other accessibility needs.	2	Local Share and NLTF RFT	2023/24 - 2030/31	0.0	0.0	3.0	3.0	3.0	5.0	26.0	**40.0**
Decarbonisation of the Ferry Fleet Stage 1	To provide infrastructure to help decarbonise the public transport fleet.	2	Local Share and NLTF RFT	2021/22 - 2023/24	5.0	15.0	10.0	0.0	0.0	0.0	0.0	**30.0**

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Project Name	Project Description	Category	Funding source	Duration	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28 – 2030/31	10-year total
TRAVEL CHOICES: ACTIVE MODES									**$ MILLIONS**			
ACTIVE MODES												
On-going Cycling Programme	An ongoing programme of cycleway delivery and associated projects following on from the completion of the Urban Cycleways Programme. Currently focuses on achieving maximum impact for short trips to the city centre, public transit interchanges, schools and local and metropolitan centres.	1 & 3	Local Share and NLTF RFT	2021/22 - 2030/31	4.2	6.1	7.5	31.0	31.0	31.0	195.2	**306.0**
Urban Cycleways Programme	Completion of the Urban Cycleways Programme. Remaining projects are New Lynn to Avondale, Links to Glen Innes, Waitemata Safe Routes, Point Chevalier to Westmere and Glen Innes to Tāmaki Drive shared path - Te Ara Ki Uta Ki Tai.	1	Local Share and NLTF	2021/22 - 2023/24	40.4	64.4	34.4	0.0	0.0	0.0	0.0	**139.2**
New Footpaths Regional Programme	Programme to construct new and widened footpaths.	1	Local Share and NLTF	2021/22 - 2030/31	4.0	4.0	4.0	4.0	4.0	5.0	24.0	**49.0**
Meadowbank Kohimarama Connectivity Project	A shared path connecting the Meadowbank and Kohimarama communities, via the Pourewa Valley and the Glen Innes to Tāmaki Drive shared path - Te Ara Ki Uta Ki Tai (the path of land and sea).	1	Local Share and NLTF RFT	2021/22 - 2023/24	4.9	3.6	13.7	0.0	0.0	0.0	0.0	**22.1**
Māngere Cycleways (Airport Access)	Walking and cycling infrastructure to improve airport access.	1	Local Share and NLTF RFT	2021/22 - 2022/23	7.0	4.6	0.0	0.0	0.0	0.0	0.0	**11.6**
Tāmaki Drive/ Ngapipi Road safety improvements	To improve the pedestrian and cycle connection on Ngapipi Bridge adjacent to the Tāmaki Drive/Ngapipi Road intersection.	1	Local Share and NLTF RFT	2021/22	6.8	0.0	0.0	0.0	0.0	0.0	0.0	**6.8**
Access for Everyone Introductory Works	Introductory works to support Auckland Council's Access for Everyone and the City Centre Masterplan Refresh.	2	Local Share and NLTF RFT	2021/22 - 2030/31	1.0	2.0	2.0	0.0	0.0	2.0	23.0	**30.0**
Minor Cycling and Micromobility (Pop-up cycleways)	A programme of minor improvements to the cycle network, that includes pop-up cycleways, cycling improvements in and around RTN Stations, community bike hub facilities and micro-mobility based improvements. The project will also look to address issues related to the monitoring of active modes.	2	Local Share and NLTF RFT	2021/22 - 2025/26	4.0	6.0	7.0	7.0	6.0	0.0	0.0	**30.0**
LOCAL BOARD PRIORITIES									**$ MILLIONS**			
Local Board Initiatives	To allow Local Boards to fund transport projects in their communities. Projects to be funded will be developed with Local Boards to meet their specific priorities.	1	Local Share and NLTF	2021/22 - 2030/31	20.0	20.0	20.0	20.0	20.0	20.0	80.0	**200.0**
Projects Funded by Rodney Transport Targeted Rate	Additional transport investment in the Rodney Local Board area funded by the Local Targeted Rate .	1	Local Share	2021/22 - 2030/31	7.8	9.4	4.6	0.1	0.1	0.1	0.1	**22.0**
Waiheke Ten-Year Transport Plan	To commence the implementation of the highest priority projects in the Waiheke 10 Year Transport Plan.	Not in ATAP	Local Share and NLTF	2025/26 - 2026/27	0.0	0.0	0.0	0.0	5.0	5.0	0.0	**10.0**
ENVIRONMENT AND SUSTAINABILITY									**$ MILLIONS**			
Environmental Sustainability Infrastructure	Programme which seeks to address environmental sustainability issues from Transport. The programme will include, but may not be limited to, projects that reduce greenhouse gas emissions, provide resilience to climate change, mitigate pollution (air, noise, land and water), protect and enhance biodiversity, and support innovation in sustainability.	1	Local Share and NLTF	2021/22 - 2030/31	1.2	1.2	1.2	1.2	1.2	2.8	11.3	**20.2**
Electric Bus Trial Roadmap	Infrastructure to support electric/low emission buses on the public transport network.	1	Local Share and NLTF	2021/22 - 2022/23	4.5	4.5	0.0	0.0	0.0	0.0	0.0	**9.0**
Supporting Electric Vehicles	Infrastructure and initiatives to support electrification of the private vehicle fleet.	2	Local Share and NLTF	2021/22 - 2030/31	2.0	5.0	5.0	0.0	0.0	5.0	17.0	**34.0**

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Project Name	Project Description	Category	Funding source	Duration	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28 – 2030/31	10-year total
SAFETY								**$ MILLIONS**				
Safety Programme	A programme of investment to address the highest risk roads and intersections that require larger scale improvements to address safety deficiencies. This programme includes addressing speed-related deficiencies on the network, and ensuring better outcomes for vulnerable road users.	1	Local Share and NLTF RFT	2021/22 - 2030/31	60.3	60.3	60.3	60.0	72.0	72.0	272.0	**657.0**
Minor Improvements	A programme of targeted improvements to address safety and operational deficiencies across AT's road, motorcycle, pedestrian and cycle networks.	1	Local Share and NLTF RFT	2021/22 - 2030/31	10.0	8.0	8.0	10.0	10.0	12.0	42.0	**100.0**
School Speed Management	A programme of investment to reduce speed limits outside all schools in Auckland through speed management interventions to meet nationally mandated school speed limit changes by 2030.	1	NLTF	2021/22 - 2030/31	5.0	5.0	5.0	5.0	5.0	10.0	40.0	**75.0**
Marae and Papakāinga (Turnouts) Safety Programme	Toa Takitini (Transformational) Māori Outcome Programme seeks to improve the entry/exit from Marae, Papakāinga and Urupa to main highways and or roads.	1	Local Share and NLTF	2021/22 - 2030/31	1.1	1.1	1.1	1.1	1.1	1.6	6.4	**13.2**
Community Safety Fund	Completion of the community safety projects that were developed by Local Boards and elected members in 2018-2021.	1	Local Share and NLTF RFT	2021/22	10.0	0.0	0.0	0.0	0.0	0.0	0.0	**10.0**
ACCESS AND CONNECTIVITY								**$ MILLIONS**				
CORRIDOR IMPROVEMENTS												
Lake Road/Esmonde Road Improvements	Improvements to Lake and Esmonde Road to improve people moving capacity and reduce journey time unreliability.	1	Local Share and NLTF RFT	2021/22 - 2025/26	1.0	1.1	7.3	10.6	28.5	0.0	0.0	**48.4**
Wynyard Quarter Integrated Road Programme	Providing road upgrades within the Wynyard Quarter precinct.	1	Local Share	2022/23 - 2025/26	0.0	0.8	15.5	14.9	14.9	0.0	0.0	**46.1**
Unsealed Road Improvements	Programme of delivering improvements to the region's highest priority unsealed roads.	1	Local Share RFT	2021/22 - 2030/31	6.0	6.0	6.0	4.0	3.0	3.0	12.0	**40.0**
Resolution of Encroachments and Legacy Land Purchase Arrangements	Programme to resolve encroachments and legacy land purchase arrangements.	1	Local Share	2021/22 - 2030/31	1.0	1.0	1.0	1.0	1.0	2.4	9.5	**17.0**
Ormiston Town Centre Link	A new road link to provide shorter access towards the emerging Ormiston Town Centre. This includes walking and cycling facilities.	1	Local Share and NLTF	2021/22 - 2022/23	1.7	15.1	0.0	0.0	0.0	0.0	0.0	**16.8**
Medallion Drive Link	A two-way link road between Fairview Avenue and the existing Medallion Drive with pedestrian and cycle facilities.	1	Local Share and NLTF	2021/22	12.0	0.0	0.0	0.0	0.0	0.0	0.0	**12.0**
Lincoln Road Corridor Improvements	Lincoln Road widening to accommodate additional transit/bus lanes, as well as intersection improvements, footpath widening for both pedestrians and cyclists, and installing a solid median.	2	Local Share and NLTF RFT	2021/22 - 2027/28	2.0	11.4	6.9	13.7	26.0	26.5	19.6	**106.2**
Glenvar Road/East Coast Road intersection and corridor improvements	Corridor improvements, including road widening and upgrading intersections to provide safety benefits, transit priority and additional cycleways.	2	Local Share and NLTF RFT	2021/22 - 2024/25	2.8	14.3	21.1	19.1	0.0	0.0	0.0	**57.3**
Smales Allens Road Widening and Intersection Upgrade	Widening Smales and Allens Roads from two lanes into four lanes and upgrading the intersection with Springs and Harris Roads.	2	Local Share and NLTF RFT	2025/26 - 2027/28	0.0	0.0	0.0	0.0	2.5	9.0	11.8	**23.4**
Hill Street Intersection Improvement	Upgrade and reconfiguration of two intersections on SH1 and Sandspit Road in Warkworth, to improve movement for all modes.	Not in ATAP	Local Share and NLTF	2021/22 - 2024/25	2.0	4.7	10.4	1.6	0.0	0.0	0.0	**18.8**

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ACCESS AND CONNECTIVITY CONTINUED									**$ MILLIONS**			
OPERATIONAL PROGRAMMES												
Regional Improvement Projects	Programme to respond to community requests for corridor improvements that focus on ensuring safe and efficient operation. This is the partner programme to the Minor Improvements Programme.	1	Local Share and NLTF	2021/22 - 2030/31	4.0	4.0	4.0	4.0	4.0	8.0	34.0	**62.0**
Parking Programme	Programme of initiatives to support AT's parking activities, including residential parking permits, on-and off-street paid parking, and enforcement activities.	1	Local Share	2021/22 - 2030/31	3.0	3.0	3.0	2.0	2.0	6.5	29.5	**49.0**
Improvements Complementing Developments	Programme to allow AT to proactively work with developers to improve transport outcomes associated with new developments.	1	Local Share	2021/22 - 2030/31	0.7	0.7	0.7	0.7	0.7	1.7	6.7	**12.0**
Core Operational Capital Programme	Minor capital programme including projects such as Advanced Destination Signage, and Regulatory Controls Infrastructure.	2	Local Share and NLTF	2021/22 - 2030/31	0.8	0.8	0.8	0.8	0.8	2.0	7.8	**14.0**
OPTIMISATION AND TECHNOLOGY									**$ MILLIONS**			
NETWORK CAPACITY AND PERFORMANCE												
Network Performance	A programme of small scale multi-modal initiatives such as synchronisation of traffic signals, road-layout improvements including bus and freight lanes and dynamic lanes to support improved outcomes for active modes, public transport, freight, and general traffic.	1	Local Share and NLTF RFT	2021/22 - 2030/31	9.0	9.0	9.0	9.0	9.0	18.0	75.0	**138.0**
Intelligent Transport Systems	A programme to take advantage of emerging technologies to manage congestion, improve safety and influence travel demand.	1	Local Share and NLTF RFT	2021/22 - 2030/31	5.0	5.0	5.0	7.0	7.0	5.0	18.0	**52.0**
Freight Network Improvements	Optimisation improvements on the freight network.	2	Local Share and NLTF RFT	2026/27 - 2030/31	0.0	0.0	0.0	0.0	0.0	6.0	24.0	**30.0**
OPERATIONAL PROGRAMMES												
Customer and Business Technology	A combined programme facilitating technology change to support the design, operation, and use of the public transport system, better customer experience, plus maintaining IT equipment and business applications. This also includes allowance for Integrated Ticketing costs.	1	Local Share and NLTF	2021/22 - 2030/31	35.0	35.0	35.0	38.0	37.0	39.0	134.0	**353.0**
Core Technology	This programme is comprised of technology upgrades and replacements, and cybersecurity.	1	Local Share and NLTF	2021/22 - 2030/31	5.0	5.0	5.0	5.0	5.0	6.5	25.5	**57.0**
Transport Demand Forecasting Models Update	Build and calibrate new Land Use, Transport Demand Forecasting, and Traffic Model Network system following 2018 Census update. This is a joint project with Waka Kotahi.	1	Local Share and NLTF	2024/25 - 2025/26	0.0	0.0	0.0	3.0	3.0	0.0	0.0	**6.0**
ASSET MANAGEMENT										**$ MILLIONS**		
Renewals	Costs associated with renewing AT's transport network and corporate assets to an appropriate standard. This includes provision for responding to climate change and emergency events.	1	Local Share and NLTF	2021/22 - 2030/31	234.4	253.0	322.1	374.7	413.1	441.5	1,892.3	**3,931.0**
Seismic Strengthening Programme	Programme for seismic strengthening around the Auckland region.	1	Local Share and NLTF	2021/22 - 2030/31	3.0	5.0	3.0	2.0	2.0	2.0	8.0	**25.0**
Street Lighting Improvements	Programme to deliver improved street lighting throughout the Auckland region.	1	Local Share and NLTF	2021/22 - 2023/24	5.0	5.0	7.0	0.0	0.0	0.0	0.0	**17.0**
Wolverton Culverts	Upgrade to two culverts under Wolverton Street that are in need of replacement.	1	Local Share	2021/22	10.0	0.0	0.0	0.0	0.0	0.0	0.0	**10.0**

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POPULATION GROWTH									**$ MILLIONS**			
Projects Supporting Auckland Housing Programme	Projects supporting Kainga Ora's Auckland Housing Programme, includes projects in Tāmaki, Māngere, Mt Roskill, Northcote and Oranga.	3	Local Share and NLTF RFT[2]	2024/25 - 2030/31	0.0	0.0	0.0	5.0	15.0	50.0	331.0	**401.0**
Greenfield transport infrastructure - Northwest	Projects to support high priority greenfield growth areas, including new Redhills connections with appropriate public transport and active mode provision.	1	Local Share and NLTF RFT[2]	2021/22 - 2030/31	3.0	3.0	5.0	5.0	11.0	23.0	92.0	**142.0**
Supporting Growth - Post Lodgement and Property	To support legal costs and necessary property purchase associated with designations, including hearings and environment court costs.	1	Local Share and NLTF	2021/22 - 2030/31	3.5	7.5	17.0	5.5	5.5	5.5	20.0	**64.5**
Tāmaki Regeneration	Local road upgrades, improvements to Glen Innes town centre and enhanced linkages to public transport as part of the agreement with Tāmaki Regeneration Company.	1	Local Share and NLTF	2022/23 - 2030/31	0.0	3.0	8.5	4.8	6.3	9.6	8.7	**40.9**
Supporting Growth - Investigation for Growth Projects	To facilitate investigation for high priority projects in growth areas.	1	Local Share and NLTF	2021/22 - 2023/24	14.0	11.0	3.0	0.0	0.0	0.0	0.0	**28.0**
Matakana Link Road	A connection between SH1 and Matakana Road.	1	Local Share and NLTF RFT[2]	2021/22	26.0	0.0	0.0	0.0	0.0	0.0	0.0	**26.0**
Wainui Improvements	Infrastructure to support Wainui growth area.	1	Local Share	2021/22 - 2023/24	3.0	10.0	10.0	0.0	0.0	0.0	0.0	**23.1**
Strategic Business Cases	These business cases cover all regions in growth areas. Business cases unlock funding assistance from Waka Kotahi's NLTP to match Council's share of the investment from the RLTP, securing FAR enables successful implementation of projects in the future. This includes Tāmaki Drive Resilience Investigation.	1	Local Share and NLTF	2021/22 - 2030/31	1.0	4.0	5.0	0.0	0.0	4.0	8.0	**22.0**
Huapai Improvements	Station Road re-alignment and signalisation at the intersection of SH16.	1	Local Share and NLTF	2021/22 - 2022/23	13.4	4.1	0.0	0.0	0.0	0.0	0.0	**17.5**
Scott Point Repayment	Payment to Auckland Council for growth related works in Scott Point.	1	Local Share	2021/22	5.0	0.0	0.0	0.0	0.0	0.0	0.0	**5.0**
Drury Local Road Improvements	Local road upgrades supporting growth and new rail infrastructure in Drury. This programme includes Waihoehoe Road improvements to connect to the proposed Drury Central Station, and intersection improvements at Waihoehoe Road and SH22.	3	Local Share and NLTF RFT[2]	2027/28-2030/31	0.0	0.0	0.0	0.0	0.0	0.0	242.8	**242.8**
Northwest Growth Improvements	Local road upgrades supporting growth and facilitating better active and public transport in the Northwest growth area. This programme includes better public transport and active modes provision between Fred Taylor Drive and Maki Street.	3	Local Share and NLTF RFT[2]	2026/27 - 2030/31	0.0	0.0	0.0	0.0	0.0	37.1	148.4	**185.5**
Western Link Road Route Protection	Route Protection for the Western Link Road in Warkworth.	3	Local Share and NLTF RFT[2]	2025/26 - 2030/31	0.0	0.0	0.0	0.0	1.0	1.0	4.0	**6.0**
AUCKLAND TRANSPORT TOTAL					**820.1**	**994.0**	**1,185.8**	**1,093.3**	**1,132.8**	**1,259.8**	**4,886.8**	**11,372.5**

Auckland Council Projects

									$ MILLIONS			
Te Whau Pathway	A shared path that will link the Manukau Harbour to the Waitemata Harbour. This will be delivered with funding from the COVID Response and Recovery Fund.	1	CRRF	2021/22 - 2023/24	14.2	12.5	3.6	0.0	0.0	0.0	0.0	**30.3**

[2] RFT in addition to Development Contributions and funding from NLTF

Auckland Regional Land Transport Plan **2021–2031**

Appendix 2

Waka Kotahi NZ Transport Agency Capital Programme

Prioritisation Key:
1 Committed and Essential
2 Prioritised
3 Requires funding

Project Name	Project Description	Category	Funding source	Duration	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28 – 2030/31	10-year total
SAFETY									**$ MILLIONS**			
Safer Networks Programme	A programme of works to prevent people from dying or being seriously injured on high risk state highways and local roads. Activities includes median and roadside barriers, markings and signage, and safe and appropriate speed treatment.	1	NLTF	2021/22 - 2030/31	22.5	13.7	0.0	21.3	30.4	22.7	43.4	**154.0**
SH16 Brigham Creek-Waimauku	A project to improve safety and efficiency for road users on the stretch of SH16 between Brigham Creek and Waimauku in Auckland.	1	NLTF	2021/22 - 2024/25	28.8	60.8	40.0	7.8	0.0	0.0	0.0	**137.4**
Dome Valley Safety Improvements	The planned safety improvements on SH1 through the Dome Valley include widening the existing road, embankment reshaping, construction of right hand turn bays and installation of flexible wire rope barriers in the central median.	1	NLTF	2021/22 - 2022/23	18.2	13.3	0.0	0.0	0.0	0.0	0.0	**31.6**
RAPID TRANSIT									**$ MILLIONS**			
CC2M & Northwest Rapid Transit	Seed funding for future Rapid Transit on the city centre to Māngere (CC2M) and Northwest lines. The project and timing are to be determined.	1	NLTF	2021/22-2030/31	30.0	45.0	15.0	1,710.0				**1,800.0**
SH18 Rapid Transit	Business Case and planning work associated with future Rapid Transit along SH18 between Westgate and Constellation Bus Station.	1	NLTF	2024/25	0.0	0.0	0.0	3.0	0.0	0.0	0.0	**3.0**
OPERATIONAL CAPITAL PROGRAMMES									**$ MILLIONS**			
State Highway Low Cost Low Risk Programme	Activities targeted to low cost safety, optimisation, and resilience.	1	NLTF	2021/22 - 2023/24	10.5	1.7	0.4	0.0	0.0	0.0	0.0	**12.6**
Preventing Wrong Way Drivers	A project to deliver a network wide solution to prevent, detect and reduce the number of WWD incidences.	1	NLTF	2021/22 - 2023/24	1.3	6.1	1.3	0.0	0.0	0.0	0.0	**8.6**
Weigh Right	Improving Stanley Street weigh station with WIM and inspection facilities, and relocating main weighing facility to Bombay to allow for SH1 traffic to be screened and weighed.	1	NLTF	2021/22 - 2024/25	1.3	5.6	1.7	0.2	0.0	0.0	0.0	**8.8**
Noise wall upgrade programme	A programme to implement roadside noise barriers to reduce exposure to high traffic noise levels from the state highway network.	1	NLTF	2021/22 - 2023/24	2.5	5.0	7.5	0.0	0.0	0.0	0.0	**15.0**
MODE CHOICE									**$ MILLIONS**			
Glen Innes to Tāmaki cycleway	A shared path for cyclists and pedestrians that will follow the eastern rail line from Merton Road near Glen Innes Station to Tāmaki Drive – connecting pedestrians and cyclists from Auckland's eastern suburbs to the Waitematā.	1	NLTF	2021/22 - 2022/23	14.0	5.4	0.0	0.0	0.0	0.0	0.0	**19.4**
20Connect (SH20B) Route Protection	Early route protection work for this project. 20Connect will improve journey reliability along SH20B and enable the future Airport to Botany Rapid Transit infrastructure, which will provide more choice for people when travelling around southwest Auckland, including to and from the airport.	1	NLTF	2021/22 - 2025/26	2.1	2.0	4.9	3.1	2.6	0.0	0.0	**14.6**
Old Māngere Bridge Pedestrian & Cycling Link	Replacement of the Old Māngere Bridge, providing the community with a safe, high-quality walking and cycling connection between the Ōnehunga and Māngere Bridge communities and a safe place for fishing.	1	NLTF	2021/22	16.9	0.0	0.0	0.0	0.0	0.0	0.0	**16.9**
Walking and Cycling Low Cost Low Risk	Walking and Cycling small projects based on Low Cost Low Risk process.	1	NLTF	2021/22 - 2023/24	2.0	2.0	2.0	0.0	0.0	0.0	0.0	**6.0**

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Appendix 2

Waka Kotahi NZ Transport Agency Capital Programme cont.

Prioritisation Key:
1 Committed and Essential
2 Prioritised
3 Requires funding

Project Name	Project Description	Category	Funding source	Duration	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28 – 2030/31	10-year total
GROWTH							**$ MILLIONS**					
Supporting Growth Route Protection Programme	An AT/Waka Kotahi Alliance has been set up to look at route protection for the preferred network in the Northwest, North and Southern growth areas of Supporting Growth Programme. This includes specific Waka Kotahi activities like an alternative corridor to existing SH16, SH22, and capacity improvements north of Albany.	1	NLTF	2021/22 - 2026/27	14.4	11.9	14.2	1.3	1.3	1.3	0.0	**44.4**
SH18 Squadron Drive interchange upgrade	New interchange west-facing ramps will complement the existing east-facing ramps to create a full interchange and provide greater access for the Hobsonville growth area. This would also reduce traffic volumes and improve public transport reliability on Hobsonville Road by redirecting some customers from the local road to SH18.	2	NLTF	2021/22 - 2026/27	2.0	14.0	26.0	23.0	1.5	1.5	0.0	**68.0**
BETTER CONNECTIONS							**$ MILLIONS**					
Puhoi-Warkworth	The Pūhoi to Warkworth project will extend the four-lane Northern Motorway (SH1) 18.5km from the Johnstone's Hill tunnels to just north of Warkworth. It is the first stage of the Ara Tūhono – Pūhoi to Wellsford project.	1	NLTF	2021/22 - 2030/31	34.7	118.6	87.1	87.2	87.0	91.3	368.4	**874.3**
Southern Corridor Improvements (Manukau-Papakura) [Debt repayment]	Debt repayments and final completion of the Southern Corridor Improvements Project, which covers the stretch of Southern Motorway (SH1) from the SH20/SH1 connection at Manukau down to Papakura in the south.	1	NLTF	2021/22 - 2026/27	13.5	76.0	75.0	27.0	36.0	13.8	0.0	**241.3**
ITS Programme & State Highway Optimisation Programme	AT/Waka Kotahi have partnered to deliver an Auckland whole of network approach to optimisation. This is the Waka Kotahi component of the programme of small scale multi-modal initiatives such as synchronisation of ramp/traffic signals, on-ramp/interchange road-layout improvements including bus and freight lanes, and Intelligent Transport Systems (ITS) to support improved outcomes for active modes, public transport, freight, and general traffic.	1	NLTF	2021/22 - 2030/31	15.2	14.8	14.6	11.4	11.4	11.4	45.6	**124.4**
Northern Corridor (includes busway extension)	A package of capacity and safety improvement projects on the Northern Motorway between Upper Harbour Highway and Greville Road including widening of SH1 between Constellation Drive and Greville Road, widening of SH18 between SH1 and Unsworth Drive, a new motorway-to-motorway connection between SH18 and SH1, upgrade of the Greville Road interchange, and extension of the existing Northern Busway from Constellation Drive to Albany.	1	NLTF	2021/22 - 2023/24	126.2	23.9	1.7	0.0	0.0	0.0	0.0	**151.8**
SH1 Additional Waitemata Harbour Connections (Business Case, Designations and Property)	The Additional Waitematā Harbour Connections project will assess options for improvements to connections between the North Shore and the city centre.	1	NLTF	2021/22 - 2026/27	1.0	4.0	8.0	10.4	6.1	6.1	24.4	**60.0**

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Appendix 2

Waka Kotahi NZ Transport Agency Capital Programme cont.

Prioritisation Key:
1 Committed and Essential
2 Prioritised
3 Requires funding

Project Name	Project Description	Category	Funding source	Duration	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28 – 2030/31	10-year total
BETTER CONNECTIONS CONTINUED									**$ MILLIONS**			
SH20A to Airport (Debt Repayment)	Debt payment for grade separation of the SH20A/Kirkbride Road Intersection (motorway trenched under Kirkbride Road).	1	NLTF	2021/22	47.7	0.0	0.0	0.0	0.0	0.0	0.0	**47.7**
East West Link (Property)	Property costs associated with the East West Link. The wider project is currently being reviewed to evaluate whether it aligns with the new priorities and strategic direction set out by the Government Policy Statement on Land Transport.	1	NLTF	2023/24 - 2030/31	10.0	10.0	5.7	0.0	0.0	0.0	5.0	**30.7**
Warkworth to Wellsford (Designation)	The Warkworth to Wellsford project is the second section of Ara Tūhono Pūhoi to Wellsford. The Indicative Alignment is 26km long, includes an 850m long twin bore tunnel in the Dome Valley and three interchanges located at Warkworth, Wellsford and Te Hana.	1	NLTF	2021/22 - 2023/24	9.0	6.0	6.0	0.0	0.0	0.0	0.0	**21.0**
SH1 Drury South to Bombay (Route Protection)	The State Highway 1 Papakura (SH1) to Bombay project proposes improvements to Auckland's Southern Motorway, between Papakura and Bombay. This covers route protection south of Drury.	1	NLTF	2021/22 - 2025/26	2.1	2.2	0.2	6.9	6.9	0.0	0.0	**18.3**
Grafton Gully Improvement Business Case	The City Centre Master Plan envisions a new multi-modal boulevard and future urban neighbourhoods for Grafton Gully and Te Toangaroa/Quay Park seamlessly stitching the eastern edge of the city centre with the heart of the city and eastern city fringe neighbourhoods.	1	NLTF	2023/24 - 2024/25	0.0	0.0	5.0	10.0	0.0	0.0	0.0	**15.0**
MAINTENANCE, OPERATIONS AND RENEWALS									**$ MILLIONS**			
State Highway Maintenance, Operations & Renewals	State highway maintenance, operations, and renewals.	1	NLTF	2021/22 - 2030/31	199.2	202.6	206.1	179.2	179.2	179.2	716.6	**1862.0**
TOTAL EXCLUDING LIGHT RAIL PROVISION					**595.0**	**599.6**	**507.4**	**391.7**	**362.4**	**327.2**	**1203.5**	**3986.8**
CC2M & NORTHWEST RAPID TRANSIT					**30.0**	**45.0**	**15.0**	**1,710.0**				**1800.0**
WAKA KOTAHI TOTAL												**5786.8**

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Appendix 3

KiwiRail Capital Programme

Prioritisation Key:
1 Committed and Essential
2 Prioritised
3 Requires funding

Project Name	Project Description	Category	Funding source	Duration	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28 – 2030/31	10-year total
KIWIRAIL PROJECTS									**$ MILLIONS**			
CRL Day One - Infrastructure Package	Infrastructure improvements to support CRL including Additional Traction Feed (West) and Investigation for ETCS Level 2.	1	NLTF	2021/22 - 2023/24	25.0	19.0	17.0	0.0	0.0	0.0	0.0	**61.0**
CRL Day One - Resilience and Asset Maintenance Programme	Resilience and asset maintenance improvements to support CRL including Integrated Rail Management Centre and Emergency Management Systems.	1	NLTF	2021/22 - 2023/24	7.5	30.3	12.9	0.0	0.0	0.0	0.0	**50.7**
KiwiRail Strategic Future Planning	Third and Fourth Main business case and Network Investment Planning.	1	NLTF	2021/22 - 2030/31	3.0	4.0	5.0	5.0	5.0	5.0	20.0	**47.0**
Progressive Fencing and Security	Ongoing programme to improve safety and security of the rail corridor through managing access.	2	NLTF	2021/22 - 2030/31	2.0	2.0	2.0	2.0	2.0	2.0	8.0	**20.0**
MAINTENANCE, OPERATIONS AND RENEWALS									**$ MILLIONS**			
Rail Network Resilience and Performance Programme - Catch-up Renewals	Funding for works to address historic formation, drainage and track issues to bring the network up to a modern metro standard. This includes acceleration of some renewal activity to ensure the programme is optimised and ensure the network will perform reliably under increased traffic volumes. Also known as the Rail Network Growth Impact Management Project. AT is the Approved Organisation.	1	NLTF	2021/22 - 2024/25	48.0	32.0	45.0	12.0	0.0	0.0	0.0	**137.0**
Maintenance, Operations, and Renewals	KiwiRail share of network maintenance, operations, and renewals cost to be agreed through the ANAA.	1	NLTF Rail Network via RNIP	2021/22 - 2030/31	5.0	5.0	7.0	8.0	8.0	8.0	33.0	**74.0**
Additional Rail Maintenance and Renewals	Lifting the level of maintenance and renewals to ensure reliable operation of the Auckland rail network in response to increased traffic volumes. This expenditure is above that currently provided by KiwiRail and Auckland Transport through the ANAA.	1	NLTF / ANAA	2021/22 - 2030/31	7.3	7.3	7.3	7.3	7.3	7.3	29.2	**73.0**
Additional MO&R for CRL Components	Additional budget maintenance, operations and renewals budget to ensure the reliable operation of CRTL. This expenditure is above that currently provided by KiwiRail and Auckland Transport through the ANAA.	1	NLTF / ANAA	2027/28 - 2030/31	0.0	0.0	0.0	0.0	0.0	0.0	9.0	**9.0**
KIWIRAIL TOTAL					**97.8**	**99.6**	**96.2**	**34.3**	**22.3**	**22.3**	**99.2**	**471.7**

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Appendix 4

NZ Upgrade Programme

Project Name	Delivery Agent	Project Description	Cost ($ million)
Northern Pathway	Waka Kotahi	A fully separated pathway between Westhaven and Akoranga, including Te Ara Pae Moana (harbour bridge component) and land component between Sulphur Beach Reserve and Akoranga.	**785**
Penlink	Waka Kotahi	A new two lane toll road between SH1 and Whangaparāoa Peninsula. A separated, shared walking and cycling lane adjacent to the new state highway will provide travel choice for those living in or visiting the peninsula. Penlink will also support safer and more reliable public transport services to and from the peninsula.	**830**
SOUTH AUCKLAND PACKAGE			
Wiri to Quay Park	KiwiRail	Works to add a third rail line between Wiri and Westfield, along with associated junction improvements, to increase rail capacity between Wiri and Quay Park, reducing congestion for both passenger and freight services.	**318**
Papakura to Pukekohe Electrification	KiwiRail	Electrification of the track between Papakura and Pukekohe to allow electric services at up to 6 trains per hour in each direction.	**375**
Drury Stations	KiwiRail	Funding for three new railway stations in Drury (two) and Paerata.	**495**
State Highway 1 Papakura to Drury South Stage One	Waka Kotahi	Improvements on SH1 from Papakura to Drury, widening the highway to three lanes in each direction to provide better travel time reliability, and adding a shared path.	**655**
Mill Road safety improvements and local infrastructure investment in Drury network	Waka Kotahi	A two-lane upgrade to Mill Road between Flat Bush and Alfriston tying into the existing urban Redoubt Road dynamic lanes. There will also be targeted safety improvements between Alfriston and Papakura. Transport upgrades to release housing and local centres in Drury in a way that supports the Government's decarbonisation goals. The projects to be considered will include regional cycleways, arterial corridors that provide direct walking, cycling and/or bus access to stations and projects within or crossing state highway corridors to help release additional housing in Drury West.	**874***
TOTAL			**4,332**

*** The costs for this package of works are not baselined and further work is required to understand scope, schedule and cost.**

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Appendix 5

Department of Conservation Capital Programme

Prioritisation Key:
1 Committed and Essential
2 Prioritised
3 Requires funding

Department of Conservation
Te Papa Atawhai

Project Name	Project Description	Category	Funding source	Duration	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28 – 2030/31	10-year total
DEPARTMENT OF CONSERVATION PROJECTS									**$ THOUSANDS**			
Local Road Improvements	Low cost low risk local road improvements to enable implementation of transport and roading projects identified by safety inspections and strategic planning work.	1	NLTF	2023/24 - 2030/31	–	–	100.0	34.0	34.7	35.4	148.7	**352.8**
Local Road Maintenance	Includes unsealed pavement maintenance, routine drainage maintenance, structures maintenance, environmental maintenance, traffic services maintenance, drainage renewals and network and asset management.	1	NLTF	2021/22 - 2030/31	25.5	25.5	25.5	41.4	41.9	45.5	152.8	**358.3**

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Appendix 6

Projects with committed NLTF funding

ACTIVITY	PHASE	2021-31 TOTAL COST	2021-31 NLTF SHARE
AUCKLAND TRANSPORT			
EMU Rolling Stock Financing Costs - EMU Depot	Construction	**$56,003,630**	**$28,561,852**
EMU Rolling Stock Financing Costs - EMU Purchase	Construction	**$313,779,249**	**$160,027,417**
Access for Everyone Introductory Works	Programme business case	**$500,000**	**$255,000**
Short Term Airport Access Improvements	Implementation	**$131,956**	**$67,298**
Short Term Airport Access Improvements	Implementation	**$2,115,475**	**$1,078,892**
Short Term Airport Access Improvements	Implementation	**$702,600**	**$358,326**
Māngere Cycleway (Airport Access)	Pre-implementation	**$342,226**	**$174,535**
Eastern Busway Stage 1	Construction	**$11,970,827**	**$6,105,122**
Eastern Busway Stages 2 to 4	Investigation	**$62,422**	**$33,084**
Urban Cycleway Programme - Tāmaki Drive	Implementation	**$1,162,700**	**$592,977**
Urban Cycleway Programme - Westhaven to CBD	Implementation	**$1,240,550**	**$632,681**
Urban Cycleway Programme - New Lynn to Avondale	Implementation	**$9,019,677**	**$4,600,035**
CRL Day One - Infrastructure Project	Implementation	**$1,800,000**	**$918,000**
CRL Day One - Infrastructure Project - ETCS	Implementation	**$2,700,000**	**$1,377,000**
Midtown Bus Improvements	Detailed Business Case	**$780,000**	**$397,800**
On-going Cycling Programme - Central Isthmus & Sandringham	Detailed Business Case	**$697,587**	**$355,769**
On-going Cycling Programme - City Centre and Fringe	Detailed Business Case	**$355,276**	**$181,191**
On-going Cycling Programme - Henderson	Detailed Business Case	**$169,120**	**$86,251**
On-going Cycling Programme - Māngere East	Single-Stage Business Case	**$1,221,023**	**$622,722**
On-going Cycling Programme - Manukau	Single-Stage Business Case	**$1,636,180**	**$834,452**
East West Connections (FN32 Stage 2)	Implementation	**$4,000,000**	**$2,040,000**
East West Connections (FN32 Stage 3)	Implementation	**$29,316,462**	**$14,951,396**
Customer and Business Technology	Implementation	**$10,879,187**	**$5,548,386**
Future Ferry Strategy	Programme business case	**$250,000**	**$127,500**
Hill Street Intersection Improvement	Pre-implementation	**$1,900,000**	**$969,000**

ACTIVITY	PHASE	2021-31 TOTAL COST	2021-31 NLTF SHARE
AUCKLAND TRANSPORT			
Lake Road/Esmonde Road Improvements	Detailed Business Case	**$280,000**	**$142,800**
Lincoln Road Corridor Improvements	Implementation	**$46,446,000**	**$23,687,460**
Lincoln Road Corridor Improvements	Property	**$32,393,000**	**$16,520,430**
Huapai Improvements	Implementation	**$15,453,815**	**$7,345,946**
Matakana Link Road	Implementation	**$28,538,694**	**$28,538,694**
Matakana Link Road	Property	**$7,566,852**	**$7,566,852**
Medallion Drive Link	Implementation	**$3,074,368**	**$1,567,928**
Medallion Drive Link	Property	**$3,000,000**	**$1,530,000**
Murphys Road Culvert Improvements	Construction	**$49,404**	**$25,196**
Rosedale and Constellation Bus Stations	Implementation	**$73,425,579**	**$37,447,046**
Network Performance	Single-Stage Business Case	**$317,083**	**$161,712**
Ormiston Town Centre Link	Implementation	**$9,596,142**	**$4,894,033**
Ormiston Town Centre Link	Property	**$3,585,344**	**$1,828,525**
Regional Improvement Projects	Implementation	**$1,950,000**	**$994,500**
Safety Programme - Safe Speeds Programme	Implementation	**$9,114,000**	**$4,648,140**
Safety Programme - Safer Communities Mt Roskill	Implementation	**$2,295,929**	**$1,170,924**
Metro - On Bus Connectivity	Implementation	**$6,276,466**	**$3,200,998**
Street Lighting Improvements	Implementation	**$10,709,223**	**$5,461,704**
Greenfield transport infrastructure - Northwest	Implementation	**$99,471,101**	**$99,471,101**
Greenfield transport infrastructure - Northwest	Property	**$70,170,572**	**$70,170,572**
Drury Local Road Improvements	Pre-implementation	**$1,750,000**	**$892,500**
Supporting Growth - Investigation for Growth Projects	Detailed Business Case	**$20,485,000**	**$10,447,350**
Midtown Bus Improvements	Detailed Business Case	**$500,000**	**$255,000**
The Congestion Question	Detailed Business Case	**$700,000**	**$357,000**
Seismic Strengthening Programme	Implementation	**$1,000,000**	**$755,000**

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Note: No activities are proposed to be varied, suspended or abandoned as part of this RLTP.

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WAKA KOTAHI NZ TRANSPORT AGENCY

Appendix 6 continued

Projects with committed NLTF funding

ACTIVITY	PHASE	2021-31 TOTAL COST	2021-31 NLTF SHARE
WAKA KOTAHI			
Puhoi-Warkworth	Implementation	**$817,924,122**	**$817,924,122**
Puhoi-Warkworth	Property	**$27,909,496**	**$27,909,496**
Northern Corridor - Busway Extension	Implementation	**$3,839,292**	**$3,839,292**
Northern Corridor Improvements	Implementation	**$118,770,837**	**$118,770,837**
Northern Corridor Improvements	Property	**$5,600,000**	**$5,600,000**
Southern Corridor Improvements (Manukau-Papakura) (Debt Repayment)	Debt	**$241,283,489**	**$241,283,489**
SH16 Brigham Creek-Waimauku	Pre-Implementation	**$1,706,788**	**$1,706,788**
SH16 Brigham Creek-Waimauku	Implementation	**$125,072,490**	**$125,072,490**
SH16 Brigham Creek-Waimauku	Property	**$10,669,141**	**$10,669,141**
Debt payment for grade separation of the SH20A / Kirkbride Road Intersection (motorway trenched under Kirkbride Road).	Debt	**$47,716,511**	**$47,716,511**
Dome Valley Safety Improvements	Implementation	**$29,958,016**	**$29,958,016**
Warkworth to Wellsford (Designation)	Property	**$21,000,000**	**$21,000,000**
Old Māngere Bridge Pedestrian & Cycling Link	Implementation	**$12,590,488**	**$12,590,488**
Supporting Growth Route Protection Programme	Detail Business Case	**$36,953,349**	**$36,953,349**
Supporting Growth Route Protection Programme	Pre-Implementation	**$2,250,000**	**$2,250,000**
20Connect (SH20B) Route Protection	Pre-Implementation	**$4,500**	**$4,500**
Glen Innes to Tāmaki cycleway	Implementation	**$48,801,816**	**$48,801,816**
20Connect (SH20B) Route Protection	Property	**$13,238,868**	**$13,238,868**
SH1 Drury South to Bombay (Route Protection)	Pre-Implementation	**$18,298,307**	**$18,298,307**
ITS Programme & State Highway Optimisation Programme	Detail Business Case	**$4,000,000**	**$4,000,000**
State Highway Low Cost Low Risk Programme	Detail Business Case	**$11,160**	**$11,160**
Weigh Right - Stanley Street	Implementation	**$1,397,907**	**$1,397,907**
Weigh Right - Bombay	Implementation	**$6,338,899**	**$6,338,899**
Weigh Right - Bombay	Property	**$19,036**	**$19,036**
Preventing Wrong Way Drivers	Implementation	**$7,797,272**	**$7,797,272**

Note: No activities are proposed to be varied, suspended or abandoned as part of this RLTP.

Auckland Regional Land Transport Plan **2021–2031**

Appendix 7

Other projects considered by ATAP

These could be considered if additional funding is available.

AGENCY	PROJECT	UNFUNDED AMOUNT ($MILLION, UNINFLATED)
PARTIALLY FUNDED PROJECTS		
AT	Accessibility Improvement Project	70
AT	Access for Everyone	522
AT	Community Safety Fund	10
AT	Connected Communities	1,026
AT	Core Operational Capital Programme	10
AT	Dairy Flat Highway Improvements	46
AT	Downtown Crossover Bus Facilities	100
AT	Drury Local Road Improvements	1,454
AT	Decarbonisation of the Ferry Fleet	69
AT	Ongoing Cycling Programme	851
AT	Greenfield Transport Infrastructure – Northwest	60
AT	Minor Cycling and Micromobility	70
AT	Minor Improvements	39
AT	Northern Busway Enhancements	480
AT	Northwest Growth Improvements	878
AT	Projects Supporting Auckland Housing Programme	195
AT	Public Transport Safety, Security and Amenity	100
AT	Level Crossings Removal – Group 2	100
AT	Waiheke 10 Year Transport Plan	74
AGENCY	PROJECT	UNFUNDED AMOUNT ($MILLION, UNINFLATED)
UNFUNDED PROJECTS		
AT	Additional Growth Projects - Paerata	127
AT	Additional Growth Projects - South	135
AT	Additional Growth Projects - Warkworth	169
AT	Additional Unsealed Road Improvements	84
AT	Airport to Botany RTN via Manukau and Airport Access Improvements – Full Implementation	1,213
AT	Bus Depot Strategy	64
AT	Chapel Rd realignment	40
AT	Cycling and Walking Connections to Waka Kotahi Infrastructure	115
AT	Downtown Ferry Terminal Redevelopment – Phase 2	152
AT	Great Barrier Airfields Programme	12
AT	Infrastructure resulting from development	20
AT	Public Transport Facilities – Middlemore Hospital	23
AT	Safe & Healthy Schools Programme	73
AT	Walking Investigation	14
AT	Wellesley Street Bus Improvements (Stage 2)	137
AT	Whangaparāoa Bus facility	34
KiwiRail/AT	Rail Infrastructure Programme Step 2 (future decades)	4,071
KiwiRail/AT	Rail Infrastructure Programme Step 3 (future decades)	2,614
NZTA	East West Link	705
NZTA	Kumeu Alternative Access	1,097
NZTA	Northern Pathway (Akoranga to Constellation)	200
NZTA	Northwest Busway – Te Atatu to Lincoln and Brigham Creek Park and Ride	281
NZTA	SH1 to SH18 Northbound Ramp	86
NZTA	SH16/SH18 connections programme	886

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Auckland Regional Land Transport Plan **2021–2031**

Appendix 8
The relationship of Police activities to the RLTP

New Zealand (NZ) Police have a significant role to play in keeping Tāmaki Makaurau's roads and communities safe. As a requirement of section 16(6)(b) in the Land Transport Management Act (LTMA), this is an assessment of the relationship of Police to the Regional Land Transport Plan.

Road policing in the Auckland region aligns to the Road Policing action plan by focusing on the top risk factors where enforcement can have the greatest impact: restraints, impairment, distraction and speed enforcement. Aligned with the focus, there is strong and coordinated support of safety behaviour change and education activities that are led by Auckland Transport (AT). These activities are funded nationally by Waka Kotahi (NZ Transport Agency) through the Road Safety Partnership Agreement.

$826 million is invested in road policing activities (2018-2021), with around 30 percent allocated to Tāmaki Makaurau. This proportion flows through to the policing targets, where Tāmaki Makaurau is responsible for around 30 percent of the three million random breath test desired target for 2020/21.

The Road Safety Partnership Programme 2019-2021 outlines the operational priorities and desirable outcomes for road policing and NZ Police work in partnership with AT to deliver local road safety plans which are informed by the Road Safety Partnership Programme. These activities are delivered by the Tāmaki Makaurau Road Policing unit, working across the three police districts of Waitemata (Rodney, Albany, North Shore, Waitakere and Whau Wards), Auckland (Waitemata and Gulf, Albert- Eden-Roskill, Orakei, Maungakiekie-Tāmaki Wards and Whau), and Counties Manukau (Howick, Manukau, Manurewa-Papakura and Franklin Wards).

OPERATIONAL PRIORITIES	NZ POLICE ACTIVITIES
Speed	Provide sufficient enforcement levels of legal speed limits to achieve general deterrence
Road and roadsides	Enforce proper use of the roads
Active users	Educate and enforce relevant laws to help keep active road users safe
Incident management	Respond to and investigate major incidents on the network
Light vehicles	Enforce laws around vehicle defects and illegal modifications
Motorcycling	Enforce compliance with road rules and refer motorcyclists to education and skills programmes
Heavy vehicles	Ensure compliance with heavy vehicle rules
Alcohol and drugs	Deliver sufficient testing levels to achieve general deterrence from driving under the influence of drugs or alcohol, and enforce compliance with legislation
High-risk drivers	Reduce the opportunities for high-risk drivers
Fatigue and distraction	Identify and discourage the use of cell phones while driving and driving while fatigued
Restraints	Ensure the wearing of restraints
Inexperienced drivers	Refer drivers to licence programmes

These priorities are targeted to help achieve NZ Police's Road Policing target of a five percent reduction in road deaths each year and is consistent with the national Road to Zero Strategy and the Vision Zero Strategy for Tāmaki Makaurau.

Vision Zero Strategy for Tāmaki Makaurau is an ambitious transport safety strategy to reduce DSI on Auckland's transport system to zero by 2050, with an interim target of no more than 250 DSI by 2030. This target is approximately
a 65 percent reduction from a 2016-2018 annual average baseline of 716 DSI.

An important part of achieving our Vision Zero aspirations is through leadership and governance. NZ Police is a member of Tāmaki Makaurau Road Safety Governance Group which also includes AT, Waka Kotahi, Accident Compensation Corporation, Auckland District Health Board and Auckland Council. The governance group holds members to account for the delivery of the system outcome that reduces DSI in accordance with strategy targets, with clear mechanisms for communication, collaboration and accountability. This includes actions in the Vision Zero Strategy in the section of 'Policing and Prevent Harm' and the partnership recommendations in AT's Road Safety Business Improvement Review 2018 as listed below.

- Increase red light cameras as part of the Memorandum of Understanding between AT and NZ Police.
- Enforcement activities around key risk areas of speed, restraints, impairment (alcohol and drugs, including roadside impairment tests), intersections and distractions (RIDS).
- Improved traffic crash reporting processes.
- Increased use of supported resolutions and compliance for non-RIDS related offences to achieve road safety outcomes.

The Auckland Transport Alignment Project (ATAP) also includes many policy areas where work can be progressed to achieve our safety targets. The ATAP Investment Package has requested higher penalties, fines and enforcement. These safety regulatory settings will link into the work Police will undertake in keeping our roads safe.

To achieve the safety outcomes for Tāmaki Makaurau, it is critical to further strengthen the partnership with NZ Police to increase enforcement and road policing activities. Death and serious injury with alcohol and speed as a contributing factor contributes to a large proportion of road deaths in Auckland (alcohol 39 percent and speed 36 percent). Road policing and enforcement plays a key role in reducing DSI and plays an important part in the collective effort in reaching our road safety targets.

Appendix 9
Consistency with S14 of the LTMA

1. The Land Transport Management Act (LTMA) requires that, before the RTC submits an RLTP to the regional council, it must meet the conditions set out in section 14 of the Act.
2. This Annex sets out our evaluation against those considerations. Evaluation against section 14(a)(i) and (ii) is set out in detail below, with the remainder of the evaluation in a table.

Section 14(a)(i) - The RTC must be satisfied that the Regional Land Transport Plan contributes to the purpose of the Act

Requirement

3. Section 14(a)(i) of the LTMA requires the RTC to be satisfied that the RLTP contributes to the purpose of the Act, which is to contribute to an effective, efficient, and safe land transport system in the public interest.
4. The Government Policy Statement on Land Transport 2021/22-2030/31 (the GPS) provides a clear indication at page 47 of how the purpose of the LTMA should be interpreted:

   Without limiting the legal interpretation of these terms, for the purpose of GPS 2021, a land transport system is:

   - *Effective when it moves people and freight where they need to go in a timely manner*
   - *Efficient when it delivers the right infrastructure and services to the right level at the best cost*
   - *Safe when it reduces harm from land transport*
   - *In the public interest where it supports economic, social, cultural and environmental wellbeing*

Evidence

5. The RLTP 2021-2031 sets out six outcomes relating to mode choice, environment and sustainability, access and connectivity, safety, supporting growth and asset management. The objectives are aligned with the 2021 GPS and Auckland Plan. The first five objectives are agreed objectives in ATAP, with the addition of the 'Sound Asset Management' objective by the RTC.
6. The RLTP's contribution to "an effective, efficient and safe land transport system in the public interest" is outlined below. Many of the contributions arising from the RLTP investment programme are overlapping and cumulative – for example effective transport interventions will support and enhance contributions to public interest and efficiency. The key reasons why the RLTP contributes to the purpose of the LTMA are as follows:

   Effective: The RLTP investment programme contributes to an effective land transport system by:

   a. Investing heavily in infrastructure and services to improve the speed, frequency, attractiveness and safety of the public transport and cycling networks. Examples are the City Rail Link and supporting projects, the Eastern Busway and Connected Communities, along with increased frequency and coverage of rail and bus services. This, in turn, will encourage mode shift away from private vehicle travel, improving conditions for those that continue to need to move on the road network, such as many freight operators.

   b. Increased investment to ensure the transport system is appropriately maintained and renewed.

   c. Investment across different modes to improve access to employment, social and cultural opportunities.

   d. Investment in 'Community Connect' to make public transport more affordable to those on Community Services Card.

   e. Major investment to support growth in the spatial priority areas and help ensure sustainable transport (public transport and active) mode use and reduced congestion. As an example, this includes over $400 million in investment in the Auckland Housing Programme development areas.

   f. Examples of the forecast results delivered by this investment between 2016 and 2031 include:

      i. A 60 per cent increase in the number of jobs accessible to the average Aucklander by a 45-minute public transport journey and a 14 per cent forecast increase in the number of jobs accessible by a 30-minute car journey at peak times (see 'Measuring outcomes: access and connectivity"). Access to social and cultural opportunities is expected to improve by a similar amount.
      ii. A 48 percent reduction in time spent in congestion on the bus network in the morning peak.
      iii. A slight improvement in average travel speed across the road network in both the morning peak and interpeak.

   g. Advocating for The Congestion Question as the primary tool to improve accessibility and travel speeds. Responsibility for implementing road pricing rests jointly with the government, Council and Auckland Transport.

   Efficient: The RLTP investment programme contributes to the efficiency outcome as it has been rigorously developed and tested through the multi-party ATAP process to ensure the right mix of projects at the right scale of investment was selected to best address Auckland's transport objectives (and therefore legislative requirements). This includes use of the Portfolio Investment Analysis tool which is an appropriate approach to evaluating land transport investment and has also been applied by the Ministry of Transport to prioritise government investment programmes. Specific analysis around land use and climate change priorities has also been undertaken. This prioritisation included identifying projects that were 'Committed or Essential' and recognising that there was very little discretionary funding available to invest in new areas.

   A major increase in investment in renewals on the local road and local public transport will also contribute to efficiency by ensuring the network is renewed at the appropriate time to avoid higher costs in the long-term.

   Safe: The RLTP contributes to reduced harm from the transport system through the adoption of Vision Zero principles along with:

   a. Investment in AT's Safety programme (including the Safe Speeds programme), Marae and Papakāinga (Turnouts) programme, School Speed Management and other safety programmes, as well as Waka Kotahi's Safer Networks and other programmes.

   b. A major investment in mode shift, to encourage a greater take-up of this safer mode of travel.

   c. The delivery of over 200 kms of new or improved safe cycling infrastructure.

   d. The promotion of several policy levers to make the transport system safer.

   These investments are expected to see a 67% reduction in deaths and serious injuries between 2018 and 2031.

   In the public interest: In addition to the above, the RLTP contributes to the public interest as follows:

   a. Supporting economic, social and cultural wellbeing by investing in new transport capacity, particularly in the public transport network, to ensure that the transport system can accommodate Auckland's future growth and still function effectively. This includes delivering a forecast 60% increase in access to employment by public transport and a 14% improvement in access to employment by private vehicle between 2016 and 2031.

   b. Significant investment to support growth and new housing in the spatial priority areas in a manner that supports sustainable transport outcomes and reduced congestion.

   c. Supporting a safer transport system, by adopting the principles of Vision Zero and targeting a significant reduction in deaths and serious injuries on Auckland's roads.

   d. Developing the public transport and the cycling networks, to encourage greater take-up of these more sustainable modes. The RLTP expects:

      i. 64% of new trips in the AM peak will be taken up by public transport and active modes; and
      ii. 200 kms of new or improved cycling infrastructure will be delivered.

   e. Providing an investment programme that, along with initiatives already signalled by Government, will contribute to emission reductions goals by achieving a reduction in emissions between 2016 and 2031 - despite a 22 percent increase in Auckland's population over the same period. When coupled with other policy levers promoted in the RLTP, much larger reductions in GHG emissions could be achieved.

Appendix 9
Consistency with S14 of the LTMA cont.

Section 14 (a)(ii) consistency of the RLTP with the GPS on Land Transport

Requirement

7. The RTC must be satisfied that the RLTP is consistent with the 2021 GPS.

Evidence

8. The following section sets out how the RLTP supports the four strategic priorities of, and is consistent with, the 2021 GPS. Note, this analysis was completed ahead of the Government's 13 June 2021 Clean Car Standard announcement.

GPS Priority - Safety: Developing a transport system where no-one is killed or seriously injured

9. The RLTP objective of "Making Auckland's transport system safe by eliminating harm to people" maps to this GPS Priority.
10. This GPS Priority is also supported by the RLTP objective of "Providing and Accelerating better travel choices for Aucklanders", which has a co-benefit of improving safety by moving away from private vehicle use and improving active mode safety.
11. Consistency with the GPS approach to delivering safety outcomes is achieved by a range of initiatives within this RLTP, including:
    a. Significant investment in safety infrastructure across the local road and State highway networks included in the RLTP
    b. Application of a Vision Zero approach across Auckland Transport's programme
    c. Investment in a variety of safety programmes, such as road safety education
    d. Incorporation of safety elements across the range of improvement projects included in this RLTP
    e. Supporting a shift to other modes and reducing demand for vehicle travel and associated harmful emissions
    f. Delivery of over 200 kilometres of new or upgraded safe cycling facilities
    g. Advocacy for a range of policy initiatives to further enhance safety outcomes
    h. Major investment in renewals to ensure transport assets meet a reasonably standard and are safe
12. The Primary Outcome for safety is as follows:

    The primary focus on this priority is to develop a transport system that advances New Zealand's vision that no-one is killed or seriously injured while travelling. New Zealand roads will be made substantially safer.

13. The RLTP investment programme is consistent with this outcome by reducing deaths and serious injuries on the local road network by 67% by 2031. This is also consistent with the GPS delivery expectations of 'reduced number of deaths and serious injuries' and 'a safer land transport network'.

GPS Priority - Better Travel Options: Providing people with better travel options to access places for earning, learning and participating in society

14. The following RLTP objectives map to this priority:
    a. Providing and accelerating better travel choices for Aucklanders
    b. Better connecting people, places, goods and services
    c. Enabling and supporting Auckland's growth, focusing on intensification in brownfield areas and with some managed expansion into emerging greenfield areas
15. Consistency with the GPS approach to delivering the Better Travel Options priority outcomes is achieved by a range of initiatives within this RLTP, including:
    a. Major investment in the rapid transit network, bus network and cycling network to accelerate mode change towards sustainable travel modes and help shape a more sustainable and attractive urban form
    b. Major investment in maintaining and renewing the existing transport network to ensure it continues to enable people to get to places where they want to live, work and play
    c. Major investment in key growth areas, particularly brownfields areas, with a focus on encouraging use of sustainable transport modes
    d. Implementation of the Auckland priorities included in the New Zealand Rail Plan
    e. New investment to improve transport accessibility for people with accessible needs, consistent with the intent of the NZ Disability Action Plan and Auckland Accessibility Action Plan
    f. Continued investment in specialised services to support accessibility, such as the total mobility scheme
    g. Delivery of ATAP via the RLTP programme.
16. The Primary Outcome for better travel options is:

    Providing people with better travel options to access places for earning, learning and participating in society.

17. The RLTP investment programme achieves consistency with this Outcome and its associated delivery expectations by:
    a. Improving access to social and economic activities – particularly by public transport but also by active modes and private vehicle
    b. Increased availability and access to public transport and active modes options
    c. Increased share of travel by public transport and active modes
    d. Reduced greenhouse gas emissions, when combined with government initiatives.

GPS Priority - Improving Freight Connections: Improving Freight Connections to support economic development

18. The RLTP objective of Better Connecting people, places, goods and services maps to this objective. It is also supported by the Providing and Accelerating better travel choices for Aucklanders.
19. Consistency with the GPS approach to delivering the Improving Freight Connections priority outcome is achieved by a range of initiatives within this RLTP, including:
    a. Rail network investment, particularly new tracks on key Auckland chokepoints (the 'Third Main'), consistent with the New Zealand Rail Plan to enhance freight movement by rail
    b. A range of corridor improvement and optimisation projects which will improve conditions for the freight and courier movements that continue to need to be made on the road network.
    c. Major investment in mode choice to reduce, relative to a no-investment scenario, demand for private vehicle travel, reducing pressure on the road network and freeing up space for freight
    d. A major increase in investment in renewals to ensure critical road and other links are renewed to an appropriate standard.
20. The Primary Outcome for freight is:

    Improving freight connections to support economic development.

21. Freight Delivery expectations are: freight routes that are more reliable; freight routes that are more resilient; reduced greenhouse gas emissions and reduced air and noise pollution.
22. The RLTP investment programme achieves consistency with the freight objective and delivery expectations by improving rail freight operations and providing a relative improvement in road freight conditions compared to a do minimum situation.

GPS Priority - Climate Change: Transforming to a low carbon transport system that supports emission reductions aligned with national commitments, while improving safety and inclusive access

23. The following RLTP objectives map to the Climate Change priority:
    a. Improving the resilience and sustainability of the transport system, significantly reducing the GHG the system generates
    b. Providing and accelerating better transport choices for Aucklanders

Appendix 9
Consistency with S14 of the LTMA cont.

24. Consistency with the GPS approach to achieving Climate Change outcomes is achieved by a range of initiatives within this RLTP, including:
    a. Major investment in public transport and active modes, particularly cycling, to encourage a transformative shift to lower carbon sustainable modes and support shaping urban form and land use in a way that reduces car dependency over the long-term.
        i. Over half of the capital improvements programme is directed to investment in low carbon modes, while other programmes such as the optimisation and technology programmes also support emission reductions by encouraging use of sustainable modes or improving flow in congested conditions.
        ii. A rapid transition in investment from the recent period, which saw construction of significant state highway capacity including the Waterview Tunnel and Western Ring Route, to a future state which will see all significant road capacity construction end in around 2027.
        iii. Assessment using the NZTA's RCAT assessment tool shows that overwhelming majority of the RLTP programme is either climate neutral or positive. The main elements that may have a negative climate impact (while supporting other GPS objectives such as the Freight Connections priority) are either committed or funded by the Crown and are therefore unable to be addressed by the Auckland Regional Transport Committee as part of RLTP development.
    b. Major investment to support more sustainable transport for priority growth areas, particularly in brownfields
    c. Funding allocations to support sustainability initiatives and encourage electric vehicle take-up, including electrification of 50% of Auckland's contracted bus fleet by 2031 with government support
    d. Advocacy for a range of policy initiatives to incentivise emissions reductions by improving the efficiency of the private vehicle fleet
    e. An allocation within the renewals budget to address the resilience impacts of climate change.
25. The Primary Outcome for Climate Change is as follows:

    Investment Decisions will support the rapid transition to a low carbon transport system and contribute to a resilient transport sector that reduces that reduces harmful emissions, giving effect to the emissions reduction target the Climate Change Commission recommended to Cabinet until emissions budgets are released in 2021.
26. The GPS delivery expectations are: Reduced greenhouse gas emissions, reduced air and noise pollution, improved resilience of the transport system.
27. In the Auckland context, the forecast 22% increase in population between 2016 and 2031 would, in a do-minimum scenario, lead to a similar sized increase in greenhouse gas emissions by 2031. However, the combination of RLTP investment[1], improved vehicle efficiency as forecast in Vehicle Emissions Prediction Model 6.1[2] and planned government interventions such as the Clean Car Standard and biofuels improvements are expected to lead to a small absolute emissions reduction (in the order of -1%) for Auckland between 2016 and 2031.
28. Inclusion of the figures for the Clean Car Standards and Biofuels blend is based on advice and announcements from the Minister of Transport that government is moving aggressively to introduce Clean Car Standards and to mandate a Biofuels blend[3]. It is therefore reasonable to assume that these will be implemented as proposed by the Government. Note the overall estimates do not include the additional reductions that could be expected from completion of the City Centre to Māngere light rail project.
29. The above figures are based on a comparison with the 2016 base year. The results therefore include the impact of projects, including the significant investment in the Western Ring Route, and population growth between 2016 and 2021 which is outside the scope of the 2021 GPS. Accounting for the rate of population growth (which is a proxy for increases in demand) relative to forecast improvements in fleet efficiency, the impact of announced government interventions and the strong emphasis on public transport and active modes in the RLTP from 2021 onwards, we are confident of a greater absolute reduction in emissions between 2021 and 2031. This reduction is estimated to be in the order of 5%. In the time scale of transport change, this scale of reduction represents a rapid shift from the nine years between 2009-2018[4] which saw an 11 percent increase in emissions.
30. Forecast emissions reductions are consistent with the priority of 'Transforming to a low carbon transport system that supports emissions reductions that align with national commitments'. They are also consistent with key elements of the Primary Outcome – particularly:
    a. Supporting a rapid transition to a low carbon transport system and
    b. "Contributing to a resilient transport sector that reduces harmful emissions, giving effect to the emissions reduction target the Climate Change Commission (CCC) recommended to Cabinet until emissions budgets are released in 2021".
31. Forecast emissions reductions are, however, likely to be less than the CCC's emission budget in its advice to the Government. Nevertheless, as required by the Primary Outcome the investment decisions as incorporated in the RLTP do contribute to and support this outcome. In addition, as the points below illustrate, there is little ability to further reduce overall emissions through RLTP direct investment in infrastructure and services.
    a. Fundamentally, investment in infrastructure or services only has a very minor impact on total emissions, whether positive or negative. Even the biggest projects may only account for changes in the order of one percent of total. Scenario testing as part of ATAP development, along with analysis of other scenarios as background to the Te Tāruke ā Tāwhiri (Auckland Climate Plan), shows that plausible changes to the programme are unlikely to yield materially different results. External variables such as demand associated with population growth or improvements in fleet efficiency have a much larger impact on total emissions.
    b. With the possible exception of a Crown allocation to complete the City Centre to Māngere light rail project, no further funding appears likely for additional sustainable modes. Assumed funding from the NLTP is already at the $16.3 billion allocation set out in the GPS. Meanwhile, Council funding for additional public transport services is also limited, with the final allocation being smaller than desirable (although increased on the original draft).
    c. There is limited practical scope to relocate elements of the programme from roading projects to further increase investment in public transport and active modes. The bulk of major roading projects included in the RLTP are either committed or included in the NZUP programme, which cannot be altered by the RTC.
    d. It is not a given that roading projects will automatically lead to increased tailpipe emissions. For example, Penlink is likely to result in a net reduction in tailpipe emissions as it significantly shortens the connection to the North Shore and reduces congestion while managing demand through tolling. As an illustration, a modelling test for the 2031 year shows that removal of the Penlink and the full Mill Road project (as originally announced in the NZUP package) would lead to a very small (0.15%) increase in CO2 emissions due to an increase in total VKT and higher congestion[5]. Remaining projects will also make important contributions to other objectives including safety, connectivity overall effectiveness and freight access – or may be multi-modal in nature.
    e. General road space reallocation towards cycling and other sustainable modes has also been proposed by submitters as a way of addressing climate issues. This is already occurring as part of the wider cycling programme and projects such as Connected Communities that will provide for bus lanes, bus priority and cycling and safety improvements. As noted, there is no available funding for further reallocation. In practice, it is also likely that gains from deterring car travel through lane reallocation alone would be largely offset by the increase in emissions associated with increased congestion[6] and diversion amongst the remaining traffic. Reallocation of general traffic lanes without additional effective alternatives (which cannot be funded) would also materially reduce the RLTP's contribution to LTMA objectives around effectiveness and economic, social and cultural public interests.

[1] The impacts of RLTP investments are modelled using the Auckland Forecasting Centre's macro strategic model. The structure and robustness of this model has been peer reviewed by international experts, and the model has been validated to 2016 conditions on the Auckland network.

[2] The Vehicle Emissions Prediction Model (VEPM) has been developed by Waka Kotahi NZ Transport Agency and Auckland Council to predict emissions from vehicles in the New Zealand fleet under typical road, traffic and operating conditions. The model provides estimates that are suitable for air quality assessments and regional emissions inventories.

[3] Government support for the Clean Car Standard and biofuels improvements, along with forecast scale of effects, has been outlined in the correspondence to the Mayor of Auckland, along with the ATAP media release and confirmed in recent correspondence with the Ministry of Transport. The scale of reductions from the Clean Car Standard and Biofuels changes is based on the average & medium point for estimates provided by Ministry of Transport officials, which correspond to the figures advised by the Minister of Transport. The Ministry noted that the estimate for biofuels are indicative only. Using the range advised by the Ministry, the estimated change in vehicle emissions compared to 2016 is between +2 and -4% and the estimated change compared to 2021 is between -3 and -8%.

[4] This is the most recent CO2e emission data we have available.

[5] The test assumed that all other variables are held constant.

[6] For example, the Vehicle Emissions Prediction Model shows emissions per kilometre increase significantly as average traffic speeds get closer to zero – especially with heavy vehicles.

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Appendix 9
Consistency with S14 of the LTMA cont.

32. Although there is limited scope to further reduce emissions through RLTP investment, we anticipate further interventions from government, beyond the already announced clean car standard and biofuels, that will support achieving the Climate Change Commission budgets. These further interventions are discussed below.

33. In terms of delivery expectations, as discussed above, we expect to see an absolute reduction in emissions (between 1% and 5%) between 2021 and 2031. Relative reductions in air[7] and noise pollution and relative improvements in transport system resilience are also expected under the RLTP investment programme.

Further emissions reductions from likely future policy initiatives

34. Further emissions reductions are expected as a result of additional government policy interventions. These will be necessary as the investment allocation and direction outlined in the GPS itself does not achieve the transport sector contribution to national commitments under current policy settings. For example, the CCC's base case, which presumably includes the effects of transport investment consistent with the GPS, anticipates a 6 percent increase in national transport emissions between 2016 and 2031 without new tools. The Hikina te Kohupara reference case also anticipates similar increases over the same period.

35. In practice, it is clear that achieving the GPS priority of 'Transforming to a low carbon transport system that aligns with national commitments and CCC emissions budgets at a national level depends on additional major national scale policy interventions that have yet to be put in place by government. This is evident from paragraph 72 of the GPS, which anticipates further elements in a Transport Emissions Action Plan as follows:

    "the outcomes for the Climate Change strategic priority in GPS 2021 reflect the Government's move towards setting emissions budgets to make sure New Zealand achieves it emission reduction goals. The independent Climate Change Commission (the CCC) is developing emissions budget which will set a cap for emissions in five-year periods (2022-2025, 2026-2030 and 2031-2035). The CCC will provide advice on the direction of policy required for an emissions reduction plan for the first budget, by February 2021. The government will respond with its plan to achieve the first budget by 31 December 2021. All investment decisions will need to be consistent with the transport component of that plan, which will be informed by the Transport Emissions Action Plan."

36. The reliance on further policy initiatives is also clear from the CCC's draft emissions budget and the Hikina te Kohupara modelling, which both depend on major new policy initiatives to achieve emission reductions targets. For example:

    a. The CCC's draft emissions budget has proposed new policies to incentivise much faster uptake of electric vehicles as a key part of its transport programme

    b. Hikina te Kohupara canvasses significant changes, including EV incentives and distanced based pricing, as key mechanisms to achieve transport emissions budgets. Meanwhile, the release of the document itself demonstrates that government expects further policy changes are required.

37. The implementation of the type of new climate change policies that can have effect at scale is beyond the scope of the RLTP as an investment programme or even local government more generally. The GPS recognises this situation, noting "Government should lead [on the reduction of greenhouse gas emissions] because it has a range of tools available to reduce land transport emissions from regulations and standards to direct investment, urban planning requirements and incentive schemes".

38. In an Auckland specific context, the Minister of Transport's ATAP media release also provides confirmation of further policy intervention, stating that:

    "To achieve meaningful reductions, changes are required in the vehicle fleet which require wider Government policy levers to be implemented to encourage electric and hybrid private vehicles.

    As Government we are developing multiple policies in order to achieve forthcoming emissions budgets and the long-term goal of net zero CO2 emissions by 2050 as required under the Climate Change Response Act 2002. We recently introduced a CO2 reduction in light vehicle imports by 2025 (the Clean Car Standard), to introduce a biofuel mandate in principle, to decarbonise the public transport bus fleet by 2035."

39. Overall, given the CCC's carbon budget process and Government's commitment to further policy initiatives, emissions reduction outcomes well in excess of the current modelled forecasts can be expected. For example, implementation of the EV incentives outlined in the CCC's draft advice would see Auckland's transport emissions reduce by a further 12 percent by 2031 beyond the reductions discussed. Consequently, we can be confident that the additional policy initiatives signalled by government will further support the initiatives in this RLTP towards achieving the GPS Primary Outcome for climate change, including CCC budgets.

    Government agreement to ATAP implicitly supports consistency of the RLTP with the GPS.

40. Based on the above, it can be concluded that the RLTP is consistent with the GPS. In addition, the ATAP process and its incorporation within the GPS is consistent with this conclusion. ATAP is an aligned strategic approach between Government and Auckland Council and is recognised in the GPS as a key element of delivery of GPS outcomes in Auckland.

    The GPS identifies ATAP as an aligned strategic approach between Government and Auckland Council .

41. This RLTP is guided by and aligned to the ATAP programme agreed by Cabinet and Auckland Council for 2021. In its summary of key policy direction documents, the GPS describes ATAP as follows:

    The Auckland Transport Alignment Project (ATAP) is an aligned strategic approach between the Government and Auckland Council to develop a transformative programme that addresses Auckland's key challenges over the next 30 years. The GPS makes explicit reference to supporting ATAP 2018 projects. The RLTP for Auckland is fully aligned with ATAP 2018 and the NLTP must give effect to the Government's priorities that for Auckland [sic] are embodied in the ATAP package.

42. As noted, delivery of ATAP is identified as one of the key expectations of the GPS and is highlighted as a key means by which the GPS expects to achieve its outcomes. The GPS makes explicit reference to supporting ATAP 2018 projects. In particular, the GPS indicates funding to give effect to the Government's commitment to the next ATAP will be factored into future GPS updates. So, given Cabinet agreement to the 2021 ATAP, we expect to see the same support for ATAP 2021 in future GPS documents.

    Ministry of Transport involvement in development of the ATAP investment programme and Cabinet endorsement.

43. The 2021 ATAP report states that the Auckland Plan and GPS provide key strategic direction to ATAP. This key strategic direction is reflected in the agreed ATAP objectives around responding to climate change, growth, better transport choices, safety and connectivity outlined above. These objectives were developed in conjunction with the Ministry of Transport officials, endorsed by a Governance Group with the Ministry of Transport's Chief Executive and finally agreed by the Minister of Transport via the ATAP Terms of Reference.

44. Like the ATAP objectives, the agreed ATAP investment programme was developed through a joint working group lead by the Ministry of Transport, with Waka Kotahi as a core party, and overseen and agreed by a Governance Group jointly chaired by the Chief Executive of the Ministry of Transport and including the Chief Executive of Waka Kotahi.

45. The ATAP package was then agreed by Cabinet after advice on the expected outcomes, including emissions. The core involvement of Ministry of Transport officials in developing the ATAP programme and its agreement by Cabinet provides a reasonable basis to assume that the ATAP programme is consistent with Government's policy objectives, implicitly including the GPS.

46. This is further reinforced by the Minister of Transport's request that officials progress work on funding rules to enable full utilisation of the GPS 2021-31 commitment of $16.3 billion for Auckland – essentially to implement the 2021 ATAP programme. This includes modifying the 2024 GPS to increase the allocation to Local Road Maintenance Activity Class.

47. As the LTMA requires that the Waka Kotahi ensure approval of funding for activities is consistent with the GPS, and the ATAP programme was supported by the Waka Kotahi along with the Minister and Ministry, it is reasonable to assume these agencies considered the ATAP programme to be consistent with the GPS. Otherwise, the resulting RLTP and NLTP would not meet legislative requirements. This can reasonably be taken into account as supporting the overall conclusion that the ATAP programme is consistent with the GPS.

[7] Some types of air pollution are expected to reduce dramatically as a result of more of the vehicle fleet meeting Euro 6 standards.

Appendix 9
Consistency with S14 of the LTMA cont.

48. The RLTP investment programme is directly aligned to the ATAP investment programme and achieves the same results. Therefore, Cabinet and central agency support for ATAP is consistent with a conclusion that the RLTP is consistent with the GPS. However, given the evaluation above, the RLTP is consistent with the 2021 GPS in any event.

Summary

49. In summary, the 2021 RLTP is consistent with the 2021 GPS as it:
    a. Seeks to achieve a set of objectives that are consistent with the four GPS investment priorities
    b. Follows an investment approach that is consistent with the GPS
    c. Is forecast to achieve outcomes that are consistent with the Primary Outcomes and delivery expectations included in the GPS.
50. This conclusion is consistent with the fact that the RLTP itself derives from the ATAP programme, which was:
    a. Developed in conjunction with the Ministry of Transport and NZTA and proposed to Cabinet, indicating that these agencies considered the RLTP to be consistent with the GPS
    b. Agreed by Cabinet, who were advised of the anticipated results, which supports the overall conclusion that the ATAP programme, and thus the RLTP, is consistent with the GPS.

Other requirements in s.14 of the LTMA

Before a regional transport committee submits a regional land transport plan to a regional council or Auckland Transport (as the case may be) for approval, the regional transport committee must -

b) have considered – i. alternative regional land transport objectives that would contribute to the purpose of this Act; ii. the feasibility and affordability of those alternative objectives	The RTC approved the regional land transport objectives at its meeting of 29 October 2021. Those objectives were identified following an Investment Logic Mapping process undertaken through the Future Connect project. The ILM process considered alternative objectives, and alternative formulation of objectives. The RTC considered the objectives and added an additional objective of 'Sound Asset Management'. The feasibility and affordability of this objective was considered in the context of additional investment needed to ensure an appropriate and sound level of asset management.
c) have taken into account any – i. national energy efficiency and conservation strategy; and	The NEECS 2017-22 identifies three priorities, of which 'Efficient and low emissions transport' is most relevant to the RLTP. In addition to matters discussed above, the RLTP supports the NEECS by: • Inclusion of programmes to decarbonise the PT fleet (the conversion of 40 - 50% of the bus fleet to electric/ hydrogen-powered by 2031, starting to decarbonise the ferry fleet, electrification between Papakura and Pukekohe and new electric trains) • Projects to expand the reach and capacity of the Rapid Transit Network, supporting greater intensification around transport hubs • Programmes to support ITS • Projects that support freight and passenger movement by rail. The EV take-up target in the NEECS (Electric vehicles make up two per cent of the vehicle fleet by the end of 2021) relates to the full vehicle fleet. However, the RLTP contains programmes and possible policy levers to support the uptake in EVs and advocates for further action in this area.
c) have taken into account any – ii. relevant national policy statements and any relevant regional policy statements or plans that are for the time being in force under the Resource Management Act 1991; and	The **National Policy Statement on Freshwater Management 2020**. The NPS on Freshwater Management was released during RLTP development. NPS objectives around improved water quality were taken into account via the "Improving the resilience and sustainability of the transport system, significantly reducing the GHG the system generates" objective. The RLTP sets out a range of initiatives to improve water quality, including via general mode change and specific water related initiatives and includes a target to reduce the impact of runoff from Auckland's busiest roads. Further work underway to identify more specific responses to the revised 2020 NPS. The **National Policy Statement on Urban Development's objectives** around urban form and greater density taken into account via the "Enabling and supporting Auckland's growth, focusing on intensification in brownfield areas and with some managed expansion into emerging greenfield areas" objectives. The relationship between this policy statement and development of the rapid transit network is specifically discussed in the RLTP in the section "Rapid transit and the National Policy Statement on Urban development". **Auckland Unitary Plan** – Development of the RLTP has taken account of the Auckland Unitary Plan in that the RLTP objectives, investment programme and outcomes align with the transport objectives in the AUP of 1) Effective, efficient and safe transport that: a) supports the **movement of people, goods and services;** b) integrates with and supports a **quality compact urban form;** c) **enables growth;** d) **avoids, remedies or mitigates adverse effects on the quality of the environment** and amenity values and the health and **safety** of people and communities; and e) **facilitates transport choices,** recognises different trip characteristics and enables accessibility and mobility for all sectors of the community. The expected form of land use under the Auckland Unitary Plan has also been a key input to development and modelling work for the RLTP, along with identification of priority growth areas.
c) have taken into account any – iii. likely funding from any source	The RTC has considered the funding sources through the development of the draft RLTP investment programme. This consideration is set out in the RLTP: • Section 8 sets out the likely funding sources. • RLTP reflects the ATAP investment programme and the funding commitments from the Government and Council. – The Government's funding commitment is in the GPS (for ATAP 2018), with an expectation that the funding commitment for 2021 will be reflected in a future GPS. – AT's capital and operating investment has been made consistent with AC's LTP. • The RLTP indicates how AT's capital programme will be amended if funding shortfalls arise.

Auckland Regional Land Transport Plan **2021–2031**

Appendix 10

Changes from the Draft 2021-2031 RLTP

The following changes have been made to the draft 2021 RLTP as a result of consultation and engagement and feedback from Auckland Council's Planning Committee, as well as:

a. changes to Auckland Council's funding for AT as a result of funding in the Long-Term Plan 2021-31;

b. changes to the New Zealand Upgrade Programme announced by the Minister of Transport on 4 June;

c. changes to ensure the RLTP is complete and meets the requirements of the LTMA.

Responding to the consultation, engagement and feedback

The following refinements have been made to the final RLTP as a result of the consultation and engagement processes.

Additional investment in new footpaths	An additional $20 million investment over ten years will be invested in new footpaths.
Dairy Flat Highway (DFH)/The Avenue Intersection	An additional investment ($12.5 million uninflated) to address safety and efficiency issues at the DFH/The Avenue intersection.
Hill Street Intersection (Warkworth)	A local share of 25% be included to address the Hill Street Intersection (Warkworth)
Business Case for Lake Road	Funding for the business case work for Lake Road will be spread over 2021/22 and 2022/23, with offsetting changes in Supporting Growth – Investigation for Growth Projects.
Auckland-Wellington Regional Passenger Services	The investigation being undertaken on the feasibility of a North Island inter-regional passenger rail service operating on the North Island Main Trunk will be referenced in the chapter on Inter-Regional Priorities
Improving community outcomes	AT is committed to working with Local Boards around the funding and allocation of smaller local projects that improve community outcomes. This continues the success of what we have achieved with the local boards in the last 12 months.

The investment in new footpaths, DFH/The Avenue intersection and Hill Street (Warkworth) local share will be delivered when and if funding becomes available due to the delivery of another project being delayed. This reflects the very limited options to make adjustments to AT's capital programme, given the current priorities to fund committed projects, complete major projects such as Eastern Busway, EMUs and infrastructure to support the CRL, and Urban Cycleway Programme, as well as priorities such as One Local Initiatives.

Submissions from All Aboard Aotearoa and Lawyers for Climate Action NZ Inc

Submissions have been received from All Aboard Aotearoa (AAA) and Lawyers for Climate Action NZ Inc (LCANZI). AAA is a coalition of climate and transport advocacy groups, including Generation Zero, Bike Auckland, Movement, Women in Urbanism, Greenpeace, LCANZI, among others.

AAA calls for decarbonisation of transport by 2030 as the best way for Tāmaki Makaurau to contribute to the global effort to limit warming to 1.5 degrees Celsius above pre-industrial levels. Decarbonisation should be achieved by reducing reliance on private vehicles and investing in public transport, active transport, and a compact city.

AAA's primary submission is that the draft RLTP does not comply with the law and must be entirely overhauled. If AT and the Council do not produce a RLTP that achieves the necessary emissions reductions, AAA will issue legal proceedings.

LCANZI notes that it fully supports the submission being made by the AAA. The focus of its separate submission is to consider in greater detail whether the draft RLTP complies with the applicable legal framework,

The RTC has fully considered these two submissions but does not agree with their views for a range of reasons, including the following.

i. Reducing carbon emissions, while very important, is one part of an overall land transport system that is required to comply with the statutory objectives of being effective, efficient and safe.

ii. The GPS notes that a number of different agencies and decision-makers have a role in providing and maintaining the transport system, requiring coordination and investment. These parties include the Minister and Ministry of Transport, Waka Kotahi, local government, other Ministries, KiwiRail and the Climate Change Commission.

iii. Likewise, Te Tāruke-ā-Tāwhiri: Auckland's Climate Plan notes that multiple parties need to be involved in the governance of and have accountability for, the implementation and actions within the Plan. The Plan allocates actions to a range of parties and proposed leadership responsibilities are shared between multiple parties.

iv. The RTC is satisfied that the RLTP is contributes to the purpose of the Land Transport Management Act and is consistent with the GPS.

Appendix 9 of this RLTP sets out the assessment of how the RLTP complies with section 14, including how it contributes to the purpose of the LTMA and is consistent with the GPS on land transport.

Incorporating changes that arise from changes to Auckland Council's funding for AT

As part of finalising its Long Term Plan 2021-31, Auckland Council has revised its funding for AT. These changes are incorporated in the final RLTP.

Operating Funding – Auckland Council has approved an additional $5 million p.a. operating funding for AT to provide new bus and ferry services. When coupled with savings to be identified by AT and co-funding from Waka Kotahi, a total of $200 million will be available for new bus and ferry services, compared to the draft RLTP.

Capital Funding – Auckland Council's capital funding for AT has been re-phased to reflect (i) AT's confidence in shifting to a $940 million capital programme in 2021/22; (ii) AT's capex profile in the draft RLTP which exceeded funding in 2024/25 and 2025/26, and (iii) the Council's own funding parameters.

While the total funding is the same over ten years, this has required a re-phasing of AT's capital programme, with around $460 million re-profiled from the 2021-26 to the 2026-31 period.

Waka Kotahi and KiwiRail programmes: changes have been made to the Waka Kotahi and KiwiRail activities to better reflect programme costs and timing.

Incorporating changes to the New Zealand Upgrade Programme

On 4 June 2021, the Minister of Transport announced changes to the NZUP programme, including a scaled down Mill Road, confirmation of three rail stations in Drury and Paerata, a separate walking and cycling bridge across the Waitemata Harbour, and changes to costs of each of the NZUP projects.

Ensuring the final RLTP is complete and meets the requirements of the LTMA

There are a number of changes proposed for the final RLTP to ensure that it is complete and fully meets the requirements of the Land Transport Management Act. Some of these are changes that would only be included in the final RLTP. They are:

a. Addition of a Chair's Forward

b. Addition of a Summary of Consultation (required by s.16(6)(f) of the LTMA)

c. Addition of a new appendix showing how the RLTP is consistent with s.14 of the LTMA (required by s.16(6)(a) of the LTMA)

d. Table of activities that have been approved for NLTF funding but not yet completed (required by s.16(6)(c) of the LTMA)

e. The monitoring approach for the implementation of the RLTP (required by s.16(6)(f) of the LTMA)

f. Inclusion of a definition of 'Significant Activity' in the Significance Policy, and adoption of the Significance Policy by the RTC.

In addition to these amendments, various small changes have been made to the RLTP to ensure it is complete and accurate.

Appendix 11
Significance Policy

Purpose

The purpose of this Significance Policy is to determine significance in respect of various matters in relation to the Auckland Regional Land Transport Plan (RLTP).

Section 106(2) of the Land Transport Management Act (LTMA) 2003 requires the Regional Transport Committee (RTC) to adopt a policy that determines significance in respect of:

a. Variations made to the RLTP under section 18D; and

b. The activities that are included in the RLTP under section 16.

This policy sets out how to:

a. Determine the significance of variations to the Auckland RLTP under section 18D of the LTMA 2003.

b. Determine what is a **significant activity** for the purpose of section 16 of the LTMA 2003.

Significance of variations to the Regional Land Transport Plan

Legislation provides for an RLTP to remain in force for six years. However, the RTC may prepare a variation to the RLTP either following a review under section 18CA, or where good reason exists. In accordance with section 18D of the Act, consultation will be required on a variation if the variation is significant.

The following variations are considered to be significant:

a. The addition or removal of an improvement activity or group of activities that the RTC considers to be of strategic importance. These are activities that either have a significant effect on the objectives in the RLTP or have significant network, economic or land use implications or impact on other regions.

b. A new AT activity, or a change to the scope of an existing AT activity, which the RTC considers to represent a 30 percent or greater increase or decrease in AT's total gross operating or capital expenditure in any one year.

c. A new Transport Agency activity or a change to the scope of an existing Transport Agency activity, which the RTC considers would increase expenditure by more than 30 percent of the Transport Agency's total gross expenditure in Auckland in any one year.

d. Any variation that is defined as significant in the Auckland Council's Significance Policy as it applies to AT.

e. A variation to the RLTP that results in a significant variation to the Regional Public Transport Plan.

The following variations will generally not be significant:

a. A change to the duration and/or order of priority of an activity or project that does not substantially change the balance of the programme.

b. Replacement of an activity or project by another activity or project of the same or substantially similar type.

c. Cost or timing changes that do not affect the scope of an activity or project.

d. A scope change for a project that does not significantly alter its original objectives.

e. An activity that has previously been consulted on.

f. A decision to progress emergency works.

Consultation is not required for any variation that is not significant, or arises from the declaration or revocation of a State Highway.

Significant activities for the Regional Land Transport Plan

Under the LTMA, an activity means a land transport output or capital project, and includes any combination of activities. An activity class means a grouping of similar activities.

An activity will be considered to be significant, and therefore needs to be shown in the order of priority in this RLTP in accordance with section 16(3)(d), as follows:

All new improvement activities in the region where funding from the National Land Transport Fund is required within the first three years of the Regional Land Transport Plan other than:

- Maintenance, operations and renewal programmes
- Public transport programmes (existing services)
- Low cost/low risk programmes
- Road safety promotion programmes
- Investment management activities, including transport planning and modelling
- Business cases that are not part of a package

Activities with inter-regional significance for the Regional Land Transport Plan

An activity will be considered to have inter-regional significance, and therefore needs to be shown in the RLTP in accordance with section 16(2) (d), if it is a significant activity and it has implications for connectivity with other regions and/or for which cooperation with other regions is required, or it is a nationally **significant activity** identified in the Government Policy Statement on Land Transport.

Appendix 12
Independent Assurance

Simpson Grierson

15 June 2021

Partner Reference
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Tēnā koe Joanne

Preparation of the Auckland Regional Land Transport Plan

1. Simpson Grierson has provided legal advice on a range of matters relating to the preparation of the Auckland Regional Land Transport Plan (**RLTP**). This has included advice on the relevance of issues raised by submitters concerning the impacts of greenhouse gas emissions from the transport network on climate change. Our advice has also included a comprehensive summary of all of the relevant legal requirements for the preparation of the RLTP, which address a broader range of issues than climate change.

2. The advice has been prepared in draft and finalised after comment from AT staff to ensure that the advice is comprehensive and based on an accurate understanding of the facts. We understand that AT staff have generally adopted our advice when providing their advice to the Regional Transport Committee (**RTC**). We have also attended workshops with the RTC to discuss our advice and answer questions. In our view, therefore, staff and RTC members have a thorough understanding of the legal framework they are working within.

3. In terms of the RTC's role, the provisions of the Land Transport Management Act 2003 (**LTMA**), and section 14 in particular, are of central importance. Section 14(a) requires the RTC to "be satisfied" that the RLTP "contributes to the purpose" of the LTMA, and is "consistent with the GPS on land transport". In doing so, the RTC must consider and take into account the matters listed in section 14(b) and (c). In our view, from what we have seen, the RTC and staff have understood and carefully considered the section 14 requirements. In particular there has been a thorough analysis of the GPS in its entirety, what it requires and whether the RLTP will be consistent with it. This has included a consideration of the views expressed by submitters.

4. The staff's advice to the RTC has addressed each of the section 14 requirements and provided an evidential basis for a conclusion that each requirement is met. We understand that this advice is acceptable to the RTC. On that basis, in our view, the RTC's decision-making process appropriately addresses these requirements.

Yours faithfully
SIMPSON GRIERSON

Gerald Lanning
Partner

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Appendix 13
Glossary

AC	Auckland Council
AHP	Auckland Housing Programme
AIAL	Auckland International Airport Ltd
ANAA	Auckland Network Access Agreement
AT	Auckland Transport
ATAP	Auckland Transport Alignment Project
CCO	Council Controlled Organisation
CRL	City Rail Link
CRLL	City Rail Link Limited
DOC	Department of Conservation
EECA	Energy Efficiency and Conservation Authority
EMU	Electric Multiple Unit
EV	Low Emission Vehicle
FTN	Frequent Transit Network (key bus and ferry routes)
GPS	Government Policy Statement on land transport
LTMA	Land Transport Management Act
LTP	Long Term Plan
MoT	Ministry of Transport
NPS-UD	National Policy Statement on Urban Development
NLTF	National Land Transport Fund
NLTP	National Land Transport Programme
NZUP	New Zealand Upgrade Programme
RFT	Regional Fuel Tax
RLTP	Regional Land Transport Plan
RPTP	Regional Public Transport Plan
RTC	Regional Transport Committee
RTN	Rapid Transit Network
RPTP	Regional Public Transport Plan
SH	State Highway
TCQ	The Congestion Question
Waka Kotahi	Waka Kotahi NZ Transport Agency

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Auckland Council
Te Kaunihera o Tāmaki Makaurau

WAKA KOTAHI
NZ TRANSPORT
AGENCY

KiwiRail