Consideration of the Draft Regional Land Transport Plan 2018-28

Recommendation

That the Regional Transport Committee:

i. Delegate authority to a sub-committee of the Regional Transport Committee and request that this sub-committee report back with a finalised draft 2018-2028 Auckland Regional Land Transport Plan to the 1 February 2018 meeting of the Committee; and

ii. Note that the 2018-2028 Auckland Regional Land Transport Plan will be consulted on in conjunction with consultation on Auckland Council's Long Term Plan (LTP) over 28 February to 28 March 2018 and that full details of the consultation approach, including advice around delegation of authority to receive verbal feedback, will be reported back to the Committee on 1 February.

Executive Summary

1. The Regional Land Transport Plan (RLTP) sets out a ten-year capital and operating programme for transport in Auckland. It covers transport activities delivered by Auckland Transport, the NZ Transport Agency (Transport Agency), Auckland Council and KiwiRail.
2. Since the 2015 RLTP was prepared, Auckland's population growth has increased at a much faster pace than was envisaged. By 2028, the population of Auckland is expected to be around two million people – four years earlier than projected in 2015. Significant investment in transport infrastructure and services will be required to meet the increasing needs of these additional people both to service new housing required to match growth and to service many more customers. The Auckland Transport Alignment Project (ATAP) study provides a framework for this investment.
3. At the same time technology is changing rapidly and the expectations of customers, from how they are communicated with, to how they pay for services and even the role of public transport and road network performance, is evolving at a fast pace.
4. Legislation requires that the RLTP is revised every six years and reviewed after three years. At its meeting of 24 October 2017 the Auckland Transport Board agreed that the level of change warrants a full review of the RLTP, along with public consultation to take place in conjunction with consultation on Council's Draft 2018-2028 LTP, between 28 February and 28 March 2018.
5. The Draft RLTP (Attachment 1) has been prepared in an environment of uncertainty around funding and delivery. At the time of writing this report, the Mayoral Proposal is yet to be issued, but early indications are that funding levels will not match the required levels of investment.
6. It appears likely that funding for new projects within Auckland Transport's capital programme will be dependent on additional support from the Transport Agency, Central Government and specialised funding sources, such as targeted rates and Housing Infrastructure Funding through a Special Purpose Vehicle. The final funding amount will not be known until May 2018 when Council makes its final budget decisions.

7. The recent change of Government will result in a review of the Government Policy Statement on Land Transport (GPS). The previous Government released a Draft GPS for consultation in February 2017. The new Government has indicated that a new draft GPS will be released by the end of 2017 and has signalled a number of likely changes to assist regional transport committees in preparing their RLTPs. In a letter dated 20 November 2017 the Minister of Transport set out the following likely revisions to the draft GPS which RTCs should take into account in preparing RLTPs:
    - Giving public transport greater priority in cities and expanding the public transport system to support new housing and interregional commuting;
    - Increasing the use of rail to enable efficient passenger and freight use;
    - Supporting regional development;
    - Increasing support for active modes – walking and cycling;
    - Delivering health, safety and environmental improvements;
    - Reducing the environmental impact of transport; and
    - Mode neutrality in freight transport planning.
8. The revised draft GPS will be available as an engagement draft in early-2018. The Minister has also signalled that more fundamental changes to the scope of the GPS and changes to local, regional and national transport planning are likely to occur at a later date but will not affect the GPS 2018. A review of ATAP is also underway.
9. In addition to the above revisions to the GPS, it is likely that the new Government will seek to implement a number of initiatives in Auckland specifically, including:
    - LRT from the city centre to Auckland Airport, and also potentially to the north-west;
    - North-west bus rapid transit acceleration; and
    - A regional fuel tax, likely at 10c per litre (likely to raise around $130 million per annum).
10. The Draft RLTP will need to be finalised in early February 2018 to meet consultation timelines. At the RTC meeting on 1 February a final draft document for consultation will need to be adopted. This will also provide an opportunity to give full advice on Auckland Council's proposed consultation approach and details of all transport-specific consultation and engagement opportunities for the public and key stakeholders. It will also be necessary for the RTC to delegate authority to certain Auckland Transport staff to formally receive verbal feedback on the Committee's behalf at local consultation events, as required under the Local Government Act 2002.

11. As reported to the 2 October CFC meeting, staff are also initiating a review of the Regional Public Transport Plan (RPTP) and the two documents will need to align. Consultation on the RPTP will be occurring at the same time as the LTP/RLTP consultation, and the intention is for the consultations to be aligned, possibly with some joint consultation or engagement events, but not fully integrated given the existing complexity of integrating the RLTP consultation with the LTP and the Annual Plan Refresh.
12. The final capital programme must be published and submitted to the Transport Agency prior to the expiry of the third year of the current Plan on 30 June 2018.

Previous Deliberations

13. The Auckland Transport board received an update on the process for development of the RLTP on 24 October 2017 and resolved to establish a Sub-Committee to oversee development of the RLTP, RPTP and SOI, and to ensure consistency between the three documents. The Sub-Committee is meeting fortnightly. The attached draft of the RLTP reflects discussion at the first meeting.

Strategic Context

14. The RLTP is required be consistent with the Government Policy Statement on Land Transport (GPS). The Draft RLTP acknowledges the significant opportunities available through adoption of new technologies, which is a particular area of focus in the draft GPS 2018. At this stage, it is uncertain when the GPS will be finalised although clearer direction by Christmas is expected.
15. The Auckland Plan sets a high-level 30-year strategy to improve Auckland's economic, environmental, social and cultural wellbeing and gives direction about the location and timing of future growth and the necessary infrastructure to support that growth. The Auckland Plan Refresh process is currently underway, and an updated vision of Auckland being a "world class city where talent wants to live" has recently been announced by the Mayor. The Auckland Plan focuses on achieving six key outcomes, one of which "access and connectivity for everyone" relates specifically to transport. The RLTP is proposed to align with the strategic directions and focus areas identified in the draft updated Auckland Plan.
16. The Auckland Transport Alignment Project (ATAP) has led to high level agreement amongst the key stakeholders on the long-term strategic approach to the development of Auckland's transport system and the likely sequencing of major investments over time to address the most critical challenges facing Auckland. ATAP provided support for an expanded capital programme – targeted to the most significant challenges – alongside a greater focus on making better use of existing networks and maximising new opportunities to influence travel demand. ATAP will form a solid base for funding decisions but will not plot the course for where Auckland needs to be in ten years.

Background

17. The Land Transport Management Act 2003 (LTMA) requires that the Regional Transport Committee (RTC) prepare a RLTP every six years, which sets out the region's transport priorities for the next ten years, and must contribute to the purposes of the LTMA and be consistent with the GPS.

18. The RLTP contains:

    - Auckland region's transport objectives, policies and measures;
    - A statement of transport priorities for the region;
    - A forecast of revenue and expenditure on activities;
    - All regionally significant expenditure on transport to be funded from sources other than the National Land Transport Fund (NLTF);
    - Identification of activities of inter-regional significance.

19. It covers the activities of AT, the Transport Agency, Auckland Council and KiwiRail.

20. Section 18CA of the LTMA requires that the RTC complete a review of the RLTP during the six months prior to the end of the third year of the Plan, to ensure that the Plan is relevant, aligned with the strategic context and gives effect to the GPS. Public consultation is required if the RLTP is revised.

Business Case Approach

21. The Transport Agency requires RLTPs to be prepared in accordance with its Business Case Approach. While we are required to meet prescribed requirements for format and content, and while this is a joint document and not simply AT's, we should be visionary in our approach. The Transport Agency approach involves the following elements:

    - Problem definition, with a clear evidence base
    - Benefits statements
    - Explore options and build clear, logical case for response
    - Informed discussion by relevant parties through the development process

22. The ATAP process has covered off many of these elements, and as presented to the 13 July CRC meeting, staff have worked with the Transport Agency and Council to reframe the ATAP challenges as problems, and to identify the key benefits from addressing these problems. A further problem statement has been retained from the 2015 RLTP around addressing adverse impacts from the transport network. This is intended to focus on environmental and cultural impacts of the transport network, as well as the significant upward trend in deaths and serious injuries on the Auckland network in recent years.

    - **Problem 1:** The existing transport network does not adequately support growth, particularly in Special Housing Areas (SHAs) and live-zoned greenfield areas
    - **Problem 2:** Accelerated growth and rising travel demand will exceed the capacity of the transport system, undermining access to jobs for people living in large parts of the west, and some parts of the south
    - **Problem 3:** Increasing demand for travel is resulting in greater congestion and unreliable travel times
    - **Problem 4:** Public and active transport modes are under-utilised relative to other modes, leading to less effective use of the transport network
    - **Problem 5:** Increasing interactions between users of the transport system are creating adverse health, safety, cultural and environmental effects
    - **Benefit 1:** The transport network will support a faster rate of housing and business growth
    - **Benefit 2:** Access to employment/labour will improve relative to current levels, supporting economic growth and increasing productivity
    - **Benefit 3:** Congestion will improve relative to projected levels – in particular travel time and reliability in the peak period will improve, and congestion will not become widespread during working hours
    - **Benefit 4:** Public transport and active mode shares will increase relative to vehicle use
    - **Benefit 5:** There will be a reduction in harm from the transport system on people and the environment
    - **Benefit 6:** Public investment in the transport system delivers value for money

Issues and Options

23. Over the past 15 years, transport investment in Auckland has increased four-fold, from around $500 million per year in 2000 to over $2.1 billion per year in 2015. This investment has enabled significant progress to be made in catching up with demand, for example through the development and electrification of the rail network and continued development of the motorway network (particularly completion of the Western Ring Route).

24. However, the next decade will be even more challenging for transport in Auckland as growth continues to accelerate. Under the proposed RLTP, the major infrastructure investment will continue, with completion of the City Rail Link and AMETI, and the start of investment in some form of Mass Rapid Transit. This decade will be made more complex, however, by the increasing focus on travel demand and getting more out of our existing assets and services.
25. Customers are expecting more and more from transport services and infrastructure. They expect to have continuous access to online services, and to be able to use this to streamline their journeys. Businesses expect to have reliable connection times so they can reach their markets around Auckland and more widely. Within ten years, we can expect some level of uptake of autonomous vehicles, potentially in the form of autonomous buses in transit lanes.
26. The RLTP document needs to tell this story, and link the strategy to the ten-year capital and operating programme.

The Regional Public Transport Plan

27. The initiatives and policies in the RPTP impact directly on the operating programmes in the RLTP, and the ten-year funding requirements. These include:
    - The future public transport network, including the role of Park & Rides
    - The bus priority programme
    - Initiatives for facilitating mobility as a service
    - Assisting the transport disadvantaged
    - Fares and ticketing

Constrained Funding

28. Until Auckland Council makes decisions around funding levels for transport in May 2018, and central government review the GPS, significant uncertainty remains.
29. In relation to Central Government funding, it could be several months before the new GPS on Transport is issued. Decisions will be made over the coming months on which agency will deliver some of the major roading projects (e.g. Mill Road). The Transport Agency has offered to “front-load” some projects. AT and the Transport Agency have entered into an agreement for AT to deliver the Matakana Link Road with “front-loading” of funding from the Transport Agency if required. However, the agreement requires funding to be repaid during the three-year construction period of the road. While these types of arrangements do not provide additional funding, they do smooth funding availability over time.

External Consultation/Engagement

30. Where a review determines that significant changes are required to the RLTP, it is necessary for a full public consultation to take place, as set out in the Local Government Act 2002. The LTMA notes that it may be appropriate for RLTP consultation to be undertaken jointly with the LTP.
31. Early engagement was undertaken with Local Boards in sub-regional cluster briefings throughout August. Approximately 40 Local Board members attended these sessions. Further engagement and formal consultation with local boards will take place during February/March 2018.
32. Early engagement has taken place with mana whenua representatives in November and is ongoing. Staff are also working with Council to identify opportunities to engage with other communities, particularly ethnic communities and Mataawaka, prior to and during public consultation.
33. Other key stakeholders will be invited to attend targeted events in March 2018. Full details on the proposed format of these events will be reported to the Committee on 1 February.
34. Written and online feedback will also be sought, and staff will report to the Board on the results of public consultation in May 2018, to ensure that any changes as a result of consultation are incorporated into the final document for publication prior to 30 June 2018.

Next Steps

35. The Transport Agency requires that we submit a draft RLTP to inform the development of the National Land Transport Programme on or before 16 December 2017. Staff will work with the Transport Agency to ensure that it is understood that this draft is still subject to change and is not the final draft for public consultation.
36. We recommend that the RTC delegate a subgroup to develop a final draft for consultation. AT staff will work with Council to agree on the content of consultation documents, Council's online feedback form, and other collateral as it pertains to the RLTP. Staff will also determine the level of resourcing required for the public consultation period including the coding and analysis of submissions, and will report back to the 1 February meeting of the RTC to finalise these matters and recommend the adoption of the final draft for consultation.
37. Further pre-consultation engagement will take place with local boards in February, and formal engagement with mana whenua is ongoing.
38. Consultation starts on 28 February. Changes will be made to the document as a result of public consultation and further information about funding availability. A targeted transport stakeholder event with a particular focus on local boards focusing exclusively on the RLTP is expected to occur in the week beginning 5 March, and another targeted transport stakeholder event covering the LTP, Annual Plan Refresh, and RLTP has been scheduled for 14 March. It is recommended that representatives of the RTC attend both these events, in addition to delegated staff, to receive in-person feedback from key stakeholders.
39. The new RLTP, incorporating any changes as a result of public consultation, must be published prior to the expiry of the third year of the current Plan on 30 June 2018.

Attachment

Attachment Number	Description
1	Draft Regional Land Transport Plan 2017-2028

Document Ownership

Submitted by	Nicki Lucas **Revenue & Analysis Manager**	
Recommended by	Richard Morris **Chief Financial Officer** Cynthia Gillespie **Chief Strategy & Development Officer**	
Approved for submission	David Warburton **Chief Executive**	

ATTACHMENT 1

Auckland Regional Land Transport Plan

2018–2028

New Zealand Transport Agency, KiwiRail, Auckland Transport, City Rail Link Ltd, Auckland Council

Introduction from the Chairman

Auckland is facing unprecedented population growth. Our beautiful natural environment, pleasant climate and ethnic diversity make it an appealing destination for immigrants to New Zealand. In addition, population is growing from within, with XX new babies born in Auckland over the last 12 months, including one little girl historically making her first appearance at the Britomart Transport Centre!

This population growth is vital for making Auckland a vibrant, growing city. But, coupled with historic under-investment in infrastructure, it is putting unremitting pressure on the transport system. Compounding this is the slow pace at which decisions on truly transformational change occurs. It is no exaggeration to say that even the most modest of capital projects can take five to seven years, moving from conception, through decision making, to securing funding, through public consultation, to design, property acquisition, resource consenting... and finally construction. By which time more people and more cars have completely wiped out the benefits that were projected.

In recent years a great deal of very good things have been achieved on the transport front in Auckland. Public transport patronage is growing at never seen before rates, customer satisfaction is on a similar trajectory, the long awaited City Rail Link is being built and we are commissioning or opening new facilities on an almost weekly basis.

But, simply not enough is being done fast enough. I often think of the queues of cars crawling along our motorways and main roads as a metaphor for the pace at which real change is occurring.

Joined-up thinking between the Government, Auckland Council, the Transport Agency and Auckland Transport is critical if we are to address these fundamental issues. For the good of 'NZ Inc,' collectively we need to now deliver a programme of infrastructure improvements coupled with behaviour change initatives which will fundamentally transform the way the transport system works.

In the short-term it is imperative that we move ahead with re-prioritising the public space we call roads. We need to be more aggressive than it has been previously in introducing many more bus lanes and giving a higher priority to cycling, walking and service vehicles.

Auckland is on the cusp of transformational change. This Regional Land Transport Plan sets out a plan for delivering on the huge potential the region has – quite simply decisions need to be made more quickly.

We look forward to hearing your views on how best to address the challenges the region is facing.

Dr Lester Levy, CNZM
Chairman, Regional Transport Committee

Table of Contents

1. The next ten years

Auckland is facing an exciting future. It is one of the fastest developing cities in Australasia, growing by 170,000 people in the last three years alone. It is increasingly diverse and multi-cultural with a growing range of economic opportunities for those that call the region home. It is against this backdrop of unprecedented growth and prosperity that Auckland Transport has developed the Auckland Regional Land Transport Plan (2018-2028).

There is no doubt that over the next ten years the way in which Aucklanders and visitors choose to live, work and play will change radically. The traditional choice between taking a car to work or public transport is already changing. Providing information and choice to customers to enable ride sharing, ease of travel to rapid and frequent public transport, walking or cycling is the future for Auckland. This will free up valuable road space for high priority users, such as freight, in order to drive up productivity and growth. Young people are leading these changes with fewer drivers' licences for under 25s. Instead, young people are finding new ways to get around.

Transport networks are now becoming less about hard infrastructure and more about information technology and the smart use of big-data. In 2013, less than half New Zealand's population had smart phones. This figure rose to 70% by 2015, and is predicted to exceed 90% by 2018. Mobility as a service is putting the customer first, and enabling people to easily make choices between different options for getting to where they need to be. Smart phone applications show customers mode options and travel times, including "first and last leg" (eg travel from their homes to catch public transport). Commuters have access to real time information about delays or disruptions to services, and alternative options. These type of services are significantly enhancing the customer service, and also encouraging people to rely more and more on public transport.

Aucklanders are using digital technology in ways we would never have envisaged ten years ago. Applications are already available for finding and paying for parking, and for carpooling. Aucklanders have a single HOP card which can be used for seamless travel on all modes of public transport, with a zonal fare system. Within the next few years, it will be possible to use credit cards as public transport cards.

There will also be a growing emphasis on "place shaping" – the role that transport infrastructure and transport-led developments play in retaining and enhancing heritage, building cohesive communities, and protecting our environment.

We cannot build our way out of congestion, and nor should we try. Increasing our focus on demand management will help to optimise the use of our roads. Average vehicle occupancy is currently around 1.5. Modelling shows that increasing this to 2.2 would almost eliminate much of the congestion currently occurring on Auckland's roads. This might involve some form of road pricing, but it's also about getting people onto public transport, encouraging carpooling through ride share applications and T2 and T3 lanes.

Investment in transport in Auckland has always been significant. Over the past 15 years, transport investment in Auckland has increased four-fold, from around $500 million per year in 2000 to over $2.1 billion per year in 2015. Transport is Auckland Council's largest, and central government's

fourth-largest area of investment. We need to make sure that we are making the best use of the investment which has already occurred through prudent asset management and maintenance.

Over the next ten years:

- Significant further investment will occur in the "public transport spine" to support the new bus network and increase the efficiency and connectivity of the network.
- Several major infrastructure initiatives which are already underway will be completed, including the City Rail Link, the Eastern Busway project and Lincoln Road upgrades, and the Puhoi to Warkworth highway.
- The current walking and cycling programme will be completed, and a new programme of investment will be underway focused on connections to rapid transit networks and the city centre.

This draft RLTP includes:

	New capital expenditure	Renewals	Operating expenditure
Transport Agency			
Auckland Transport			
KiwiRail			
CRL Ltd			
Auckland Council			
Dept of Conservation			

The incoming Government is in the process of reviewing and finalising its priorities for transport in Auckland. This is likely to lead to changes in the Government Policy Statement for Land Transport, which will need to be reflected in the RLTP. This will become evident over the coming months, and will be reflected in the final RLTP, together with changes resulting from public consultation.

2. Strategy and context

Purpose of the RLTP

The RLTP must be prepared every six years in accordance with the Land Transport Management Act (LTMA). It is a shared plan which sets out the region's land transport objectives and includes a ten-year programme which sets out a prioritised list of activities intended to deliver these objectives.

The RLTP must contribute to the purpose of the LTMA which seeks "an effective, efficient and safe land transport system in the public interest". It is also required to be consistent with the Government Policy Statement on land transport (GPS).

All publicly funded land transport activities in Auckland are included in this RLTP, including:

- The road network, including state highways
- Footpaths and cycleways, which are usually but not always beside roads
- Road safety activities delivered in partnership by AT, the Transport Agency and the 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
- Management and improvement of rail track infrastructure by KiwiRail
- Parking provision and enforcement activities
- Transport planning.

The Land Transport Management Act requires that the RTC complete a review of the RLTP during the six months prior to the end of the third year of the Plan, to ensure that the Plan is relevant, aligned with the strategic context and gives effect to the GPS. Public consultation is required if the RLTP is revised. Given the rapidly increasing Auckland population, the Auckland Transport Alignment Project and the change of Government, the Auckland RTC has decided a full revision of the RLTP is warranted at this time.

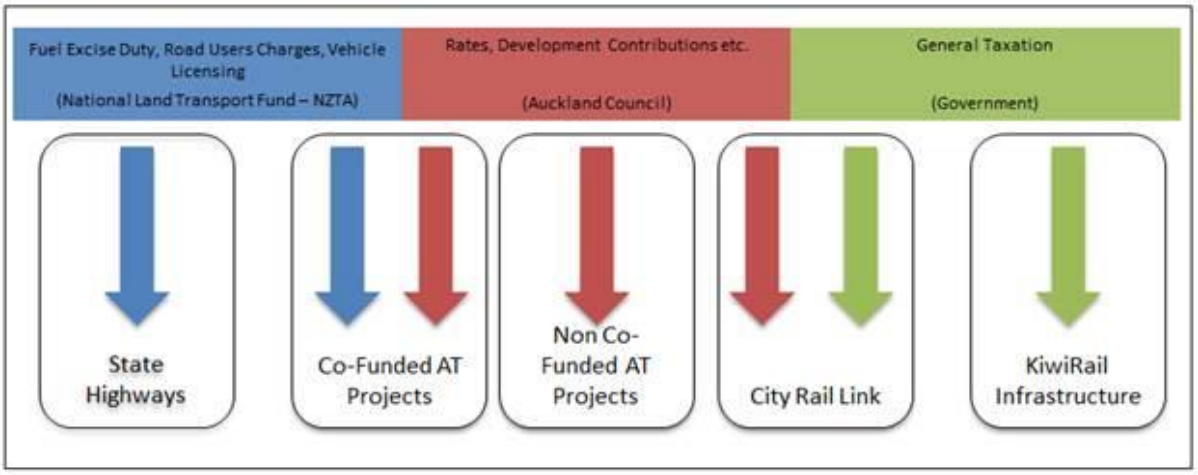
Funding sources

Over the past 15 years transport investment in Auckland has increased four-fold, from around $500 million per year in 2000 to over $XX billion per year in 2016/17. Transport is Auckland Council's largest and central Government's fourth-largest area of investment. Transport projects and programmes are funded from a mix of:

- Central government funding for land transport activities through the National Land Transport Fund (NLTF). The NLTF is predominantly sourced from fuel excise duties, road user charges, registration and licensing fees. The Transport Agency administers the fund, which is used to contribute to investment state highways, local roads, public transport, traffic policing and other transport activities, approved for funding through the National Land Transport Programme (NLTP).
- Central government also invests directly in transport activities in Auckland. For example, central government is funding half of the City Rail Link.
- Auckland Council owns AT and contributes over half of its total funding[NL(1]. The council's revenue is from rates, user-charges and debt. Rates generally fund ongoing activities such as bus services, while debt funds new infrastructure such as railway stations. Auckland

Council's over-riding strategic document is the Auckland Plan. Details of funding sources for Auckland Council are set out in the Long-term Plan.

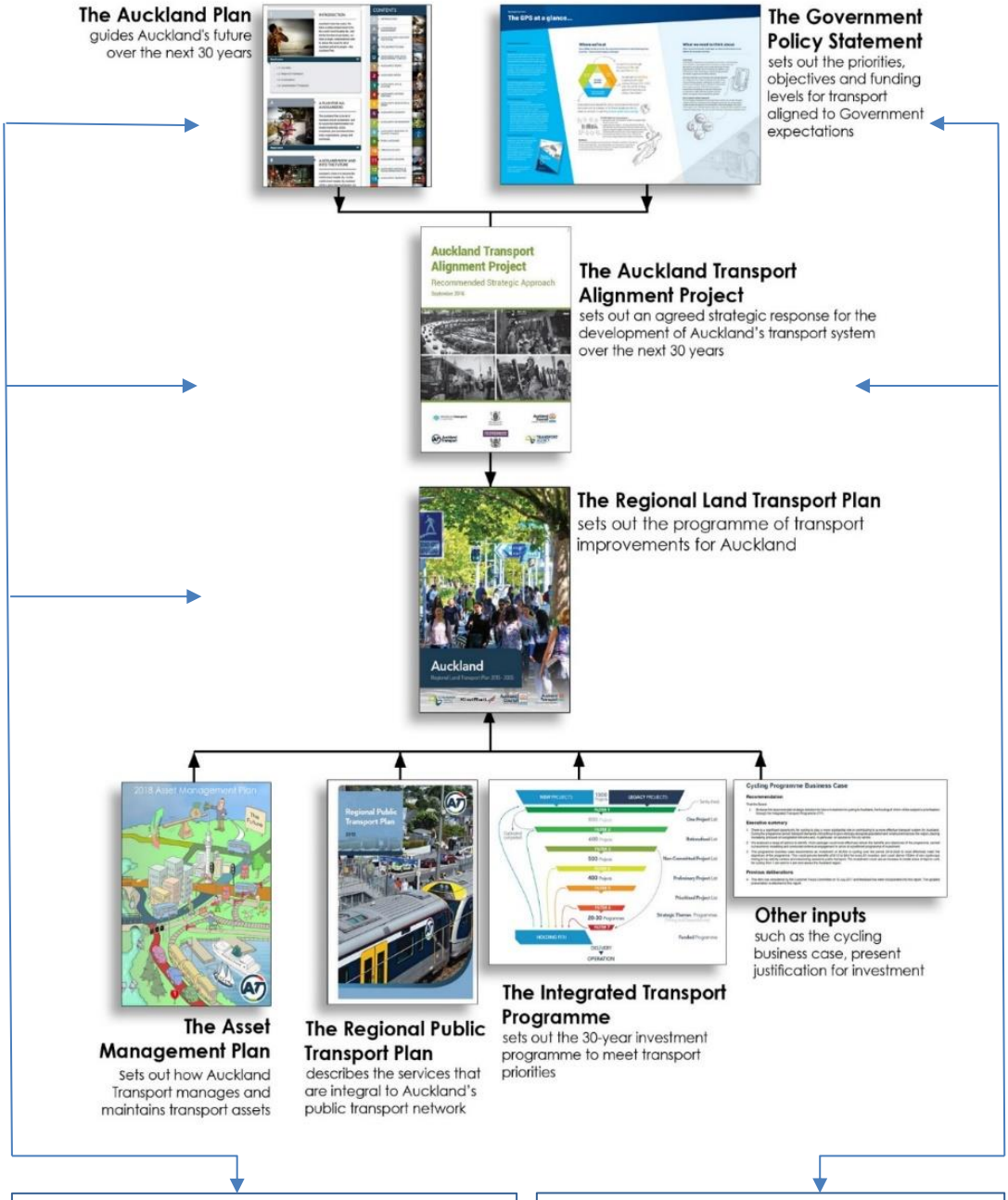
- AT's third-party revenue including fares on public transport services, advertising, and income from land held for future transport needs, parking revenue and enforcement.
- The Housing Infrastructure Fund (HIF) is an initiative of central government, making $1 billion available to assist high growth councils to advance infrastructure projects important to increasing housing supply. Around $300m will be provided for for transport and three waters bulk infrastructure development in the Northwest of Auckland.



Add pie charts re funding sources and destinations

Strategic Context

The diagram below highlights the key planning document and strategic themes for both Auckland Transport and the Transport Agency. More detail on the key documents is provided in the following sections.



Auckland Transport Strategic Themes:

- Prioritise rapid, high frequency public transport
- Continually transform and elevate customer experience
- Build network optimisation and resilience
- Enable quality urban growth to meet demand
- Fast-track creative, innovative and efficient transport services

Transport Agency Focus Areas:

- Shape the Land Transport System
- Target rapid growth
- Connect and develop regions
- Keep people safe
- Improve customer experiences
- Deliver connected journeys
- Achieve organisational excellence
- Transform the Transport Agency

Government Policy Statement on Land Transport (GPS)

The Draft Government Policy Statement (GPS) on land transport 2018 was released by the Minister of Transport for public engagement in February 2017. The overall national strategic direction for land transport, as described in the draft GPS 2018, is to drive improved performance from the land transport system by focusing on:

- Economic growth and productivity
- Road safety
- Value for money

The new Government has indicated that a new draft GPS will be released by the end of 2017 and has signalled a number of likely changes to assist regional transport committees in preparing their RLTPs. In a letter dated 20 November 2017 the Minister of Transport set out the following likely revisions to the draft GPS which RTCs should take into account in preparing RLTPs:

- Giving public transport greater priority in cities and expanding the public transport system to support new housing and interregional commuting;
- Increasing the use of rail to enable efficient passenger and freight use;
- Supporting regional development;
- Increasing support for active modes – walking and cycling;
- Delivering health, safety and environmental improvements;
- Reducing the environmental impact of transport; and
- Mode neutrality in freight transport planning.

The revised draft GPS will be available as an engagement draft in early-2018. The Minister has also signalled that more fundamental changes to the scope of the GPS and changes to local, regional and national transport planning are likely to occur at a later date but will not affect the GPS 2018.

In addition to the above revisions to the GPS, it is likely that the new Government will seek to implement a number of initiatives in Auckland specifically, including:

- LRT from the city centre to Auckland Airport, and also potentially to the north-west;
- North-west bus rapid transit acceleration; and
- A regional fuel tax, likely at 10c per litre.

The Long-term Strategic View (LTSV)

The Transport Agency's Long-term Strategic View (LTSV) is a document that is intended to provide a link between the Government Policy Statement (GPS) and the investment proposals developed by local authorities. It sets out a number of priorities for inter-regional transport to link international ports and other key locations which make significant contributions to the national economy. The LTSV notes the ATAP Recommended Strategic Approach in response to the challenge of Auckland's growth and notes the immediate and future transport priorities with a focus on geographical areas of future population growth and expected future business growth

The Auckland Plan

The Auckland Plan sets a high level 30 year strategy to improve Auckland's economic, environmental, social and cultural wellbeing. This includes a high level development strategy that gives direction about the location and timing of future growth and the necessary infrastructure to support that growth.

Under an updated vision of Auckland being a "world class city where talent wants to live", the Auckland Plan focuses on achieving six key outcomes:

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

Transport contributes to achieving all these outcomes, although the strongest links are to the transport and access outcome.

The Auckland Plan strategic directions and focus areas that look to achieve access and connectivity for everyone are outlined in the table below.

Outcome: Transport and Access						
Direction 1 Create an integrated transport system connecting people, places, goods and services		**Direction 2** Increase genuine travel choices		**Direction 3** Maximise safety and environmental protection		
Focus Area 1 Make better use of existing transport networks, including a greater focus on influencing travel demand.	**Focus Area 2** Target new transport investment to target the most significant challenges	**Focus Area 3** Maximised the benefits from transport technology	**Focus Area 4** Make walking, cycling and public transport preferred choices for many more Aucklanders	**Focus Area 5** Better integrate land-use and transport decisions.	**Focus Area 6** Move to a safe transport network, free from death and serious injury	**Focus Area 7** Develop a sustainable and resilient transport system.

Consultation on the Auckland Plan is underway at present, so these Directions and Focus Areas may change.

Maori Strategic Pou

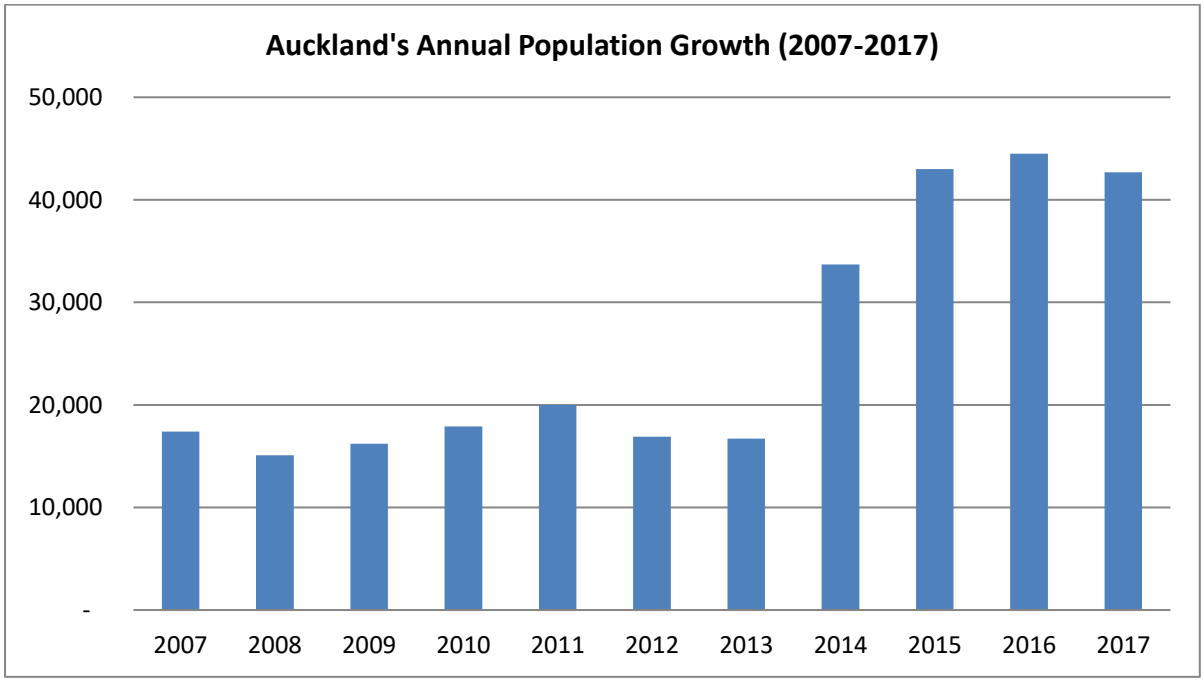
The thirteen mana whenua groups who comprise the iwi of Auckland City have agreed five pou for Maori aspirations. These have direct relevance for transport in Auckland:

- Cultural identity. We will work to preserve and enhance the unique cultural identity of Maori and its place at the forefront of New Zealand's way of life
- Economic well-being. Opportunities will be sought to provide economic development for Maori businesses and people consistent with procurement requirements
- Leadership and Influence. We will continue to work with mana whenua to recognise their role under the Treaty of Waitangi for kawanatanga
- Infrastructure and Property. We will continue to work with mana whenua on land use issues and in the design and construction of facilities and infrastructure
- Natural environment. We have a large impact on the environment. We will work with mana whenua to minimise adverse impacts and to preserve and enhance the natural environment

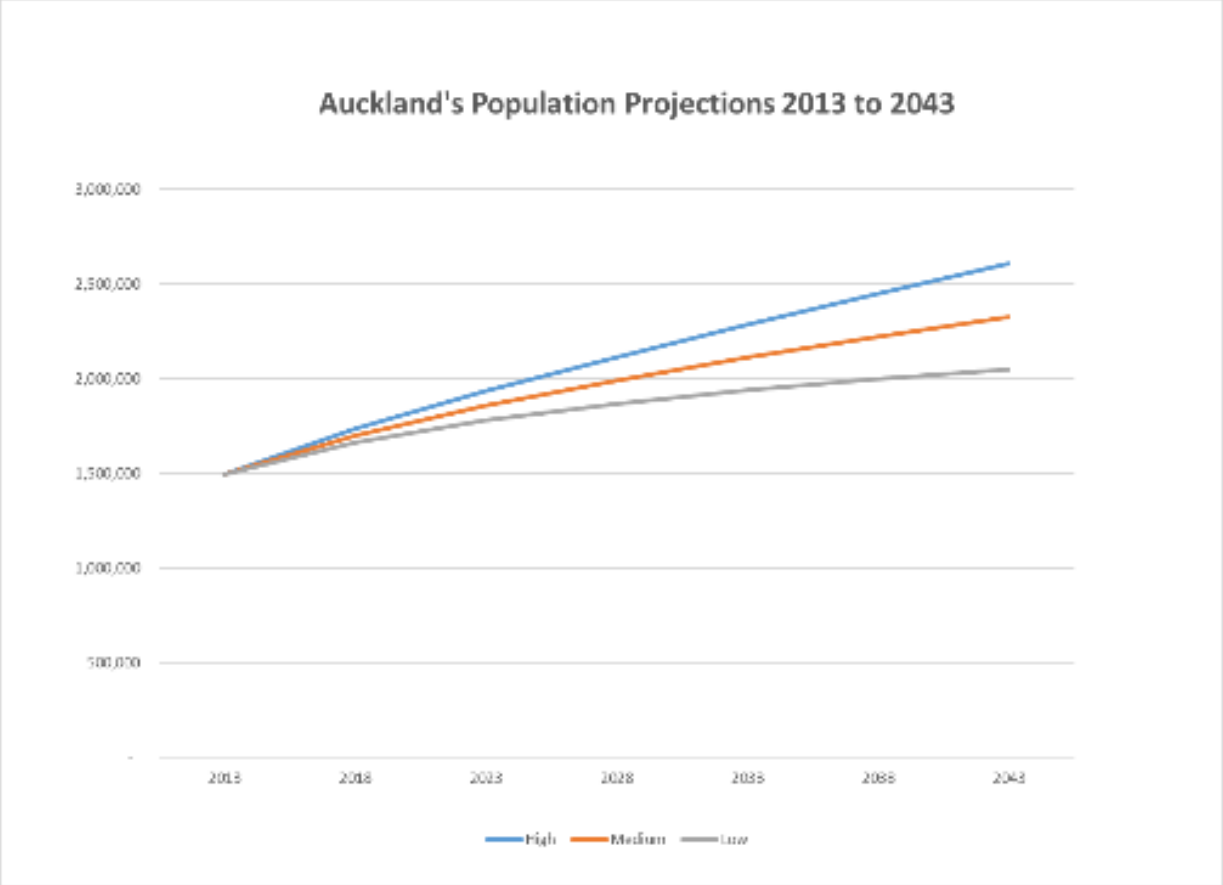
These strategic priorities are consistent with other strategic planning priorities and are incorporated into the way resources and programmes are prioritised over the ten years.

3. The current situation[NL(2]

Auckland is the largest urban area in New Zealand, and home to around over 1.7 million people. Over the past few years the rate of growth has increased substantially, from around 17,000 people per year from 2006 to 2013 to over 40,000 per annum since 2015, making Auckland the fastest growing major city in Australasia. Since Auckland's local government was amalgamated in 2010 the population has grown by around 250,000 people.



This rapid growth is projected to continue, at least for the next few years. Statistics NZ project the region's population to reach between 2 million (medium growth rate) and 2.1 million (high growth rate) by 2028. Over the next 30 years Auckland is projected to grow by by between 700,000 and 1 million people.



This growth provides opportunities to improve the prosperity and well-being of all New Zealanders, through the greater diversity of social, cultural and economic opportunities that a larger population provides. However, these benefits will only be realised if new opportunities can be accessed conveniently, affordably, safely and sustainably.

The impact of Auckland's growth and on the transport system was the subject of detailed examination by the Auckland Transport Alignment Project (ATAP). This process involved both central and local government, working together to identify an aligned strategic approach for the development of Auckland's transport system. The new Government has signalled will review ATAP over the coming months.

Five critical transport problems facing Auckland over the next decade have been identified, based on ATAP, the GPS and the Auckland Plan:

- ***Problem 1:*** *The existing transport network does not adequately support growth, particularly in Special Housing Areas (SHAs) and live-zoned greenfield areas*
- ***Problem 2:*** *Accelerated growth and rising travel demand will exceed the capacity of the transport system, undermining access to jobs for people living in large parts of the west, and some parts of the south*

- ***Problem 3:*** *Increasing demand for travel is resulting in greater congestion and unreliable travel times*
- ***Problem 4:*** *Public and active transport modes are under-utilised relative to other modes, leading to less effective use of the transport network*
- ***Problem 5:*** *Increasing interactions between users of the transport system are creating adverse health, safety, cultural and environmental effects*

Problem 1: The existing transport network does not adequately support growth, particularly in Special Housing Areas (SHAs) and live-zoned greenfield areas

Auckland needs to significantly accelerate the pace of housing and business construction, especially to improve housing affordability. Over the next 30 years up to 400,000 new homes will be required to provide for Auckland's growth. Around two-thirds of these homes will be in existing urban areas, and one-third in areas which are currently rural.

Significant investment is required to enable and support greenfields growth in the region. The Unitary Plan identifies around 15,000 hectares of rural land for future urbanisation to accommodate around 135,000 dwellings. This will require new transport, water and wastewater infrastructure in those growth areas. While that transport infrastructure will be partly provided by developers, it will still require significant investment from Auckland Transport and the Transport Agency.

ATAP emphasised the importance of enabling a faster rate of housing growth, particularly in Special Housing Areas and greenfield areas live-zoned by the Unitary Plan. This recognised the benefits of this investment will largely be seen through the acceleration of development, rather than through the alleviation of current transport deficiencies.

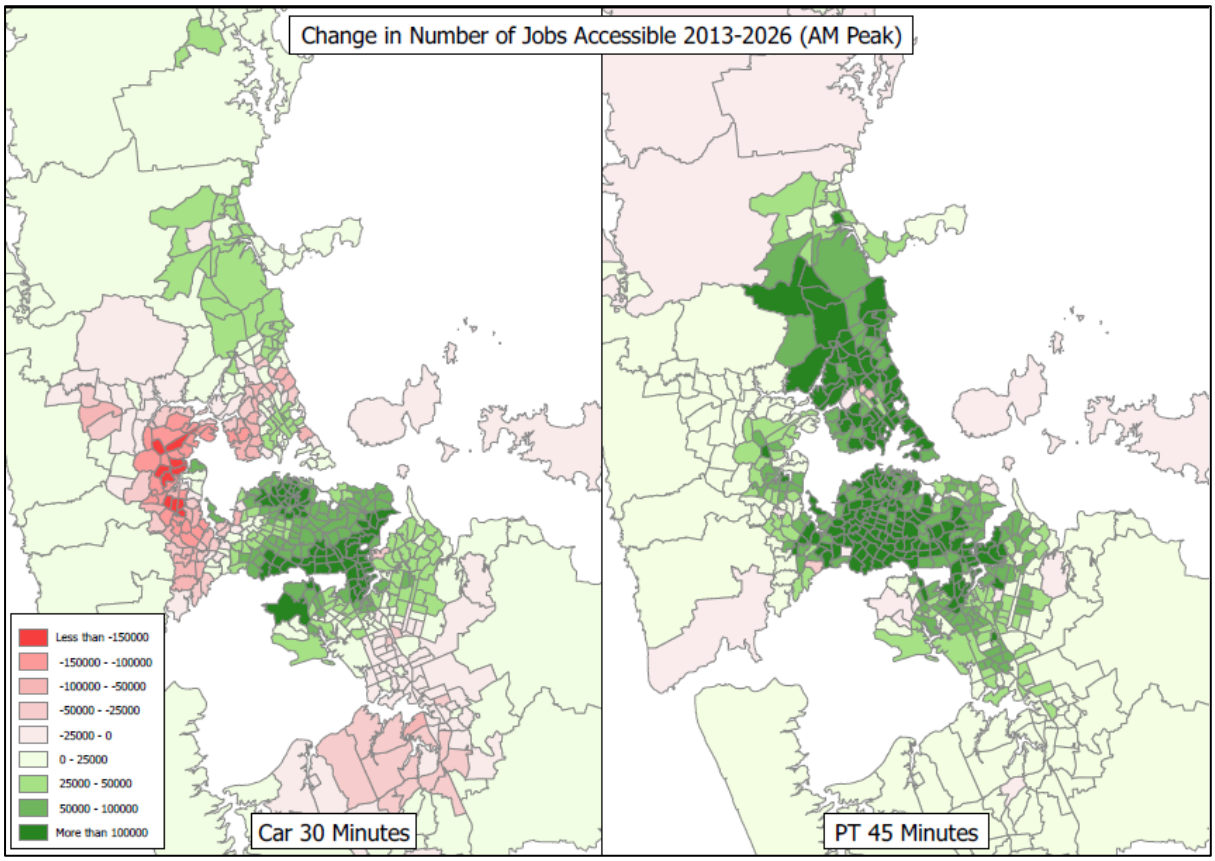
Problem 2: Accelerated growth and rising travel demand will exceed the capacity of the transport system, undermining access to jobs for people living in large parts of the west, and some parts of the south

Rapid population growth, lower fuel prices and a buoyant economy has led to substantial growth in travel demand over the past few years. This is a new trend, as for much of the previous decade travel demand was slow and reduced on a per-capita basis.

- Total vehicle travel has grown by around 10% in the past three years, this equates to around 360,000 more trips each day.
- Annual public transport boardings have increased by 22%, from 69.9 million to 90 million
- Rail has grown even faster, with boardings increasing by over 70% since 2014.

Longer travel times and poorer reliability ultimately make it more difficult to reach employment, education, healthcare, shopping, services, recreation and the myriad of other activities people undertake in their daily lives. Access to job and education opportunities is particularly crucial to boosting Auckland's economic productivity and prosperity as both businesses and workers benefit from having a wide variety of workers or jobs available through improved 'job matching'.

ATAP highlighted that parts of Auckland – especially in the west and south – face a future where the number of jobs within a reasonable commute time may reduce over the next ten years as Auckland's economy evolves and as congestion lengthens travel times. As the west and south contain some of the most deprived communities in Auckland and expect to see significant growth, focused effort is required to improve access for these parts of Auckland.



[Change in access to employment 2013-2026 with only committed transport investments in place – CEE4 in ATAP]

Problem 3: Increasing demand for travel is resulting in greater congestion and unreliable travel times

Growing demand is exceeding capacity on many parts of the transport network. This is leading to congestion on motorways and arterial roads, and overcrowding on public transport services. Ultimately these constraints lead to slower speeds and less reliable travel times for people, goods and services moving around Auckland.

While some level of congestion is the by-product of a successful and growing city, the performance of many parts of Auckland's transport network has deteriorated rapidly over the past few years:

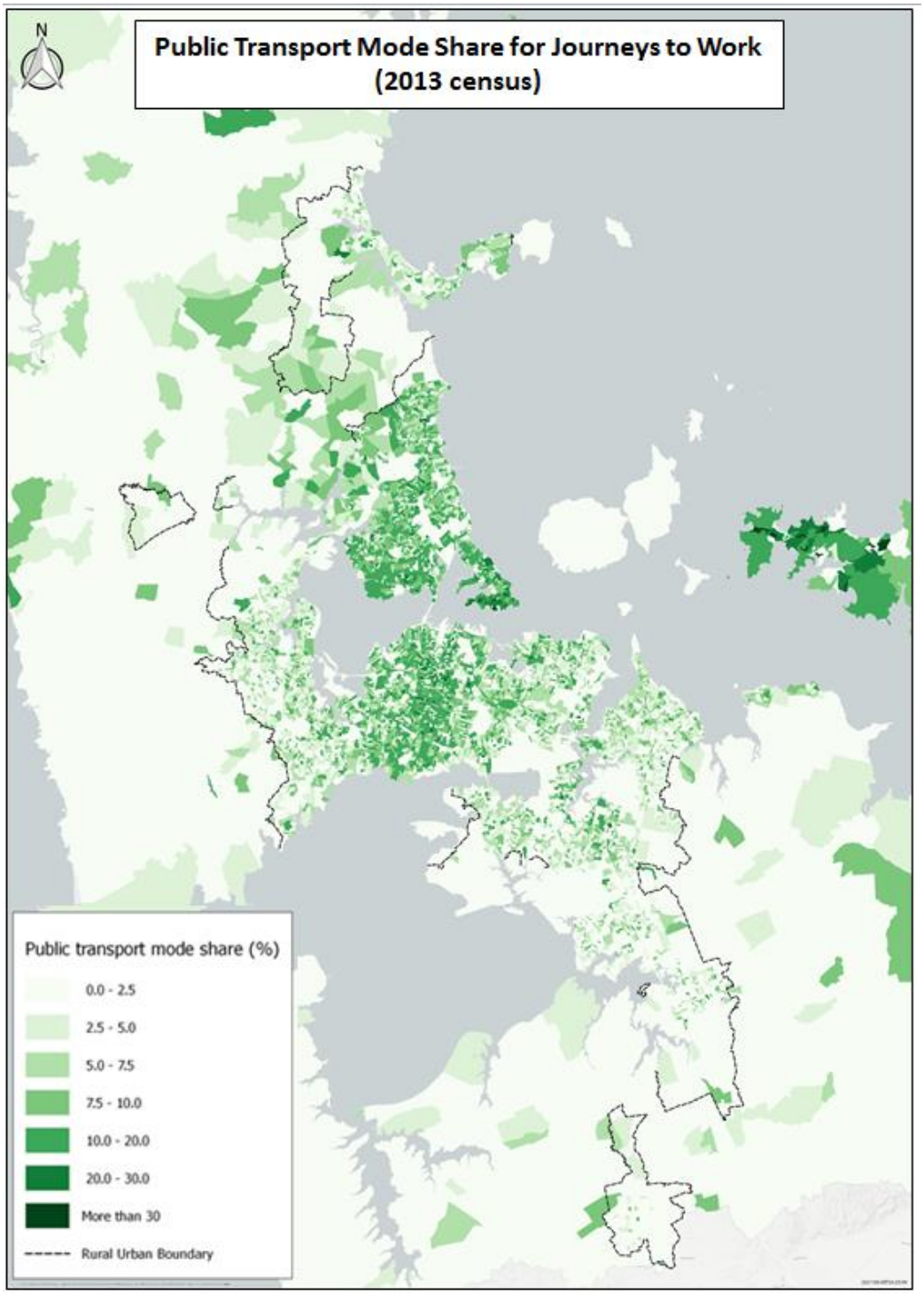
- Average peak time travel speeds on Auckland's state highway network have declined from 64 to 55 km/h between 2014 and 2016.
- The arterial road network has become increasingly congested at peak times. 24% of Auckland's arterial road network is now congested at peak times, up from 18% three years ago. Across a very large network this is a substantial reduction in performance.
- Congestion is increasingly spreading into inter-peak times, which is particularly concerning as this affects commercial and freight travel that occurs at this time.
- A number of public transport services are facing capacity constraints, particularly bus routes accessing the city centre from the isthmus and the North Shore.

Increased travel times and poor reliability have a particularly severe impact on the efficient movement of goods and services. Auckland has a nationally significant freight logistics function in the production and distribution of freight to the rest of New Zealand. Travel delays and poor reliability create genuine and substantial costs to businesses that are ultimately borne by us all[NL(3].

Problem 4: Public and active transport modes are under-utilised relative to other modes, leading to less effective use of the transport network

Throughout the second half of the twentieth century Auckland become one of the most car dependent cities in the world through an investment approach that almost completely ignored public transport, walking and cycling. Much has changed over the past 20 years, but this legacy of underinvestment and the development patterns it created means many Aucklanders still do not have access to attractive, safe, reliable and affordable travel choices.

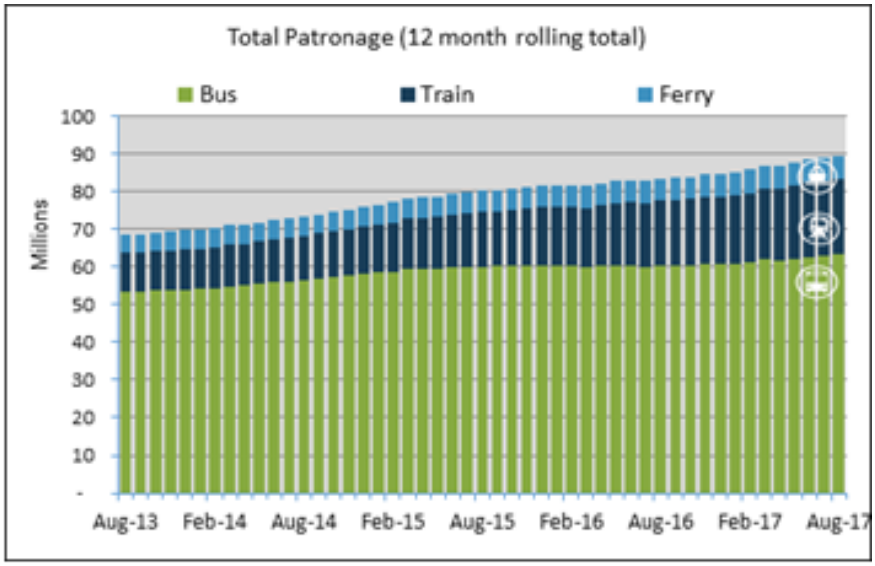
Of particular concern is that travel choice is often poorest in parts of Auckland with socio-economic deprivation and where the access challenge is greatest. Many households cannot make the most efficient travel choices, resulting in transport making up a large and unaffordable part of their budgets and using up substantial parts of their time.



ATAP emphasised the need to increase public transport mode share, particularly along congested corridors and to concentrated activity centres like the city centre and major employment areas. This recognises the difficulties of widening existing transport networks, providing new corridors and ultimately the need to utilise space more efficiently.

There has been considerable success in increasing public transport uptake in Auckland. Annual public transport boardings have increased by 22%, from 69.9 million in the year to January 2014 to nearly 90 million in the year to June 2017. Rail has been a big component of that growth, with boardings increasing by over 70% since 2014, on the back of initiatives such as electrification and the new fleet

of electric trains. Bus patronage has also increased, by XX% from 2014 to XX% in 2017, with the rollout of the new network, integrated ticketing and new fare structure.



However, the ability to continue to grow public transport patronage is limited by the capacity of the PT network, with parts of the PT network increasingly facing capacity constraints, particularly capacity on the rail network, and accessing the city centre by bus from the isthmus and the North Shore.

Now need to add walking and cycling discussion

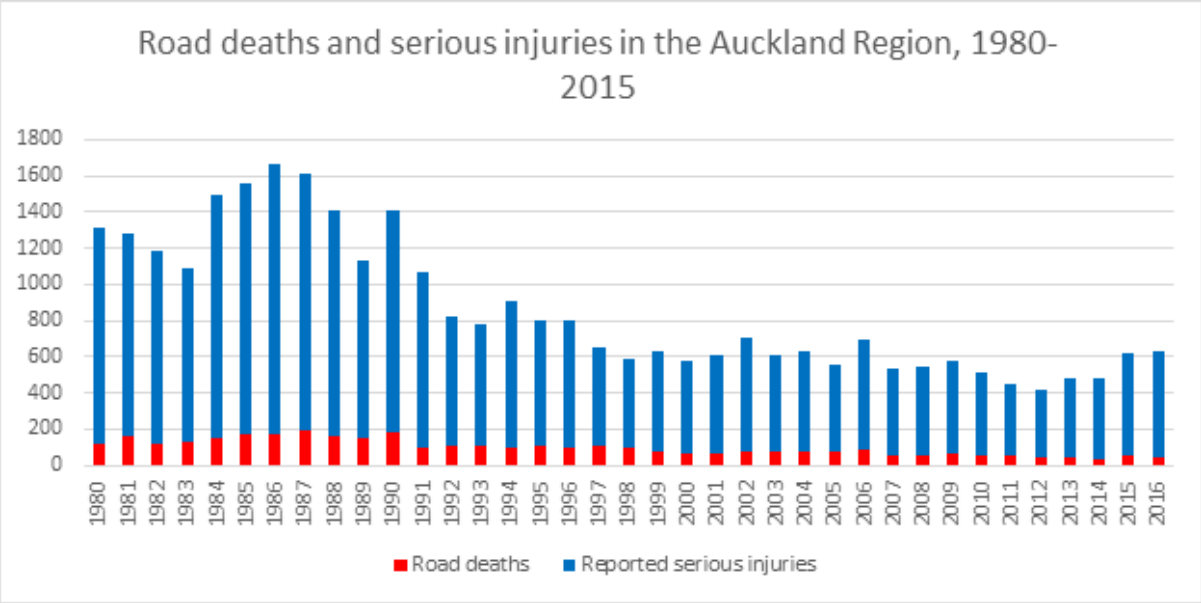
Problem 5: Auckland's transport system creates unacceptable harm to people and the environment

Although the transport network provides an important role in connecting people, communities and businesses, the transport network also has multiple adverse impacts on Auckland's people and communities. These can range from the impact of transport initiatives on place-making in our streets, neighbourhoods and town centres in terms of visual amenity, sense of community, physical connections between key local destinations and support for active modes of transport, through to serious environmental issues and road deaths and serious injuries.

Environmental issues can include air pollution, contamination of waterways through run-off, flooding and stormwater overflow due to infrastructure being unable to cope with extreme weather events, visual and noise pollution, loss of green space, disruption to ecosystems with the construction of new transport infrastructure, and soil and groundwater contamination.

One of the most significant adverse impacts associated with the transport networks is on safety and health. The last few years has seen substantial increases in deaths and serious injuries on Auckland's road network, reversing a previous decades-long period of decline. Vulnerable road users (pedestrians, cyclists and motorcyclists) are over-represented in these statistics compared with the rest of New Zealand. The social cost of road trauma is significant. Furthermore, unsafe parts of the

transport network stifle the range of realistic available travel choices, be it through actual or perceived safety concerns discouraging walking, cycling and public transport.



Pollutants from the transport system also create unacceptable impacts on people and the environment. Particulates and other vehicle emissions compromise air quality and harm the health of Aucklanders, especially those with fragile respiratory systems and those living close to highly trafficked routes. Furthermore, unattractive environments for walking and cycling contribute to lower levels of physical activity and a wide variety of associated health problems, including obesity and diabetes.

Transport is Auckland's largest contributor to greenhouse gas emissions, contributing to the global challenge of climate change. Reducing greenhouse gas emissions from the transport system is fundamental to meeting regional, national and international commitments to mitigate the impact of climate change.

At a more local level, runoff from the transport network contributes to the pollution of waterways while the construction of new transport infrastructure has the potential to generate significant environmental, cultural and social impacts that need to be appropriately mitigated.

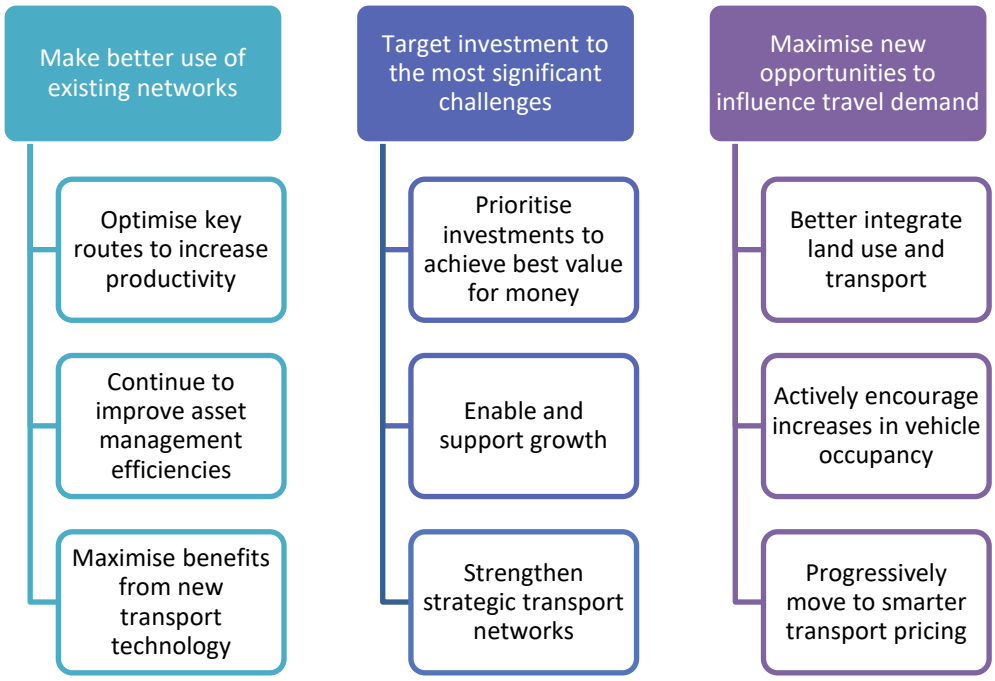
4. Strategic approach and prioritisation

Addressing Auckland's transport challenges is critical to the success of the region and of New Zealand as a whole. An integrated approach is required, with agreement between all stakeholders. There is currently more alignment than ever before among the key stakeholders responsible for meeting this challenge. ATAP has led to an agreement on the long-term strategic approach to the development of Auckland's transport system.

Auckland Transport Alignment Project

ATAP highlighted that a change in approach to addressing Auckland's transport challenges is required. In the past, the main response to growing travel demand was to increase road capacity and (less commonly) provide public transport, walking and cycling infrastructure and services. In comparison, relatively little attention was placed on influencing travel demand.

Moving forwards, it will be necessary to expand the range of interventions to improve transport performance. ATAP outlines outlines the need for an integrated approach that targets new investment to the most significant challenges, makes better use of existing network, and maximises opportunities to influence travel demand.



A stronger focus on network-level strategic planning to identify and manage routes, including criteria to balance different user requirements and address conflicts between through-movement and amenity. This strategic planning can assist with difficult decisions needed to increase productivity, such as removing on-street parking, upgrading intersections, and introducing freight priority measures. More efficient asset management, including greater use of technology, has the potential to substantial overall savings. Technology will also play an increasingly important role in improving

the performance of Auckland's transport network, although the new technologies and their impact are still to be fully understood.

Investment in new infrastructure to increase road capacity, provide public transport, and walking and cycling infrastructure will continue to be important. However, Auckland's fast rate of growth, its physical geography that limits the available transport corridors, and the high cost will mean that a sole focus on investing in large infrastructure will not succeed. Therefore, prioritisation is important, with focus being on high value-for-money investments, and investment to strengthen the strategic public transport network and the strategic road network. It was recognised that an increased focus on the need to provide for residential growth was required, placing stronger emphasis on availability of infrastructure to support large scale development. In greenfield areas substantial investment is often required to enable growth to occur.

Finally, ATAP emphasised the importance of influencing travel demand. Better integration of land use and transport will help to ensure that residential and business growth areas are supported by transport connections. Coordination of urban design outcomes and place making, walking and cycling and other joint strategies can also improve the performance of the transport system.

Measures to actively encourage increases in vehicle occupancy can reduce the numbers of vehicles on the road. Like most cities around the world, vehicle occupancy in Auckland has been declining for decades, although new ridesharing technologies provide opportunities to reverse this trend.

New and emerging technologies provide new opportunities to influence demand, including moving over time to a smarter transport pricing system that varies charges according to the time and location of travel. The Auckland Smarter Transport Pricing Project has commenced and will undertake an investigation to inform a deicision on whether or not to proceed with introducing smarter transport pricing in Auckland. This will involve a detailed options analysis process aimed at developing a system that can improve the performance of Auckland's transport network in a way that supports wider economic, social and environmental outcomes.

The new Government has indicated that it will review ATAP over the next few months.

ATAP and the Prioritisation Process

Although ATAP developed an indicative package, it was not itself an investment programme and generally focused only on the larger components of the programme. This RLTP translates the ATAP strategic approach into a more specific implementation plan for the next ten years. Therefore, the transport programme in this RLTP has been developed through a process of prioritising potential investments in a way that best gives effect to the strategic direction articulated in ATAP, the Government Policy Statement and the Auckland Plan.

Addressing the five problems discussed in Chapter X can deliver significant benefits for Auckland. The ten year investment programme developed by ATAP will deliver the following benfits, compared to the status quo:

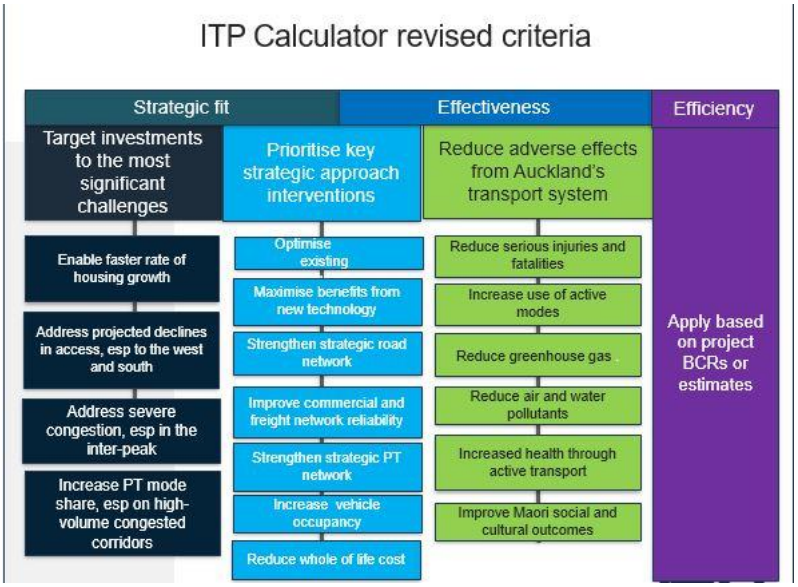
- ***Benefit 1:*** *The transport network will support a faster rate of housing and business growth*
- ***Benefit 2:*** *Access to employment/labour will improve relative to current levels, supporting economic growth and increasing productivity*
- ***Benefit 3:*** *Congestion will improve relative to projected levels – in particular travel time and reliability in the peak period will improve, and congestion will not become widespread during working hours*
- ***Benefit 4:*** *Public transport and active mode shares will increase relative to vehicle use*
- ***Benefit 5:*** *There will be a reduction in harm from the transport system on people and the environment*
- ***Benefit 6:*** *Public investment in the transport system delivers value for money*

The transport programme has been developed through a process of prioritising potential investments in a way that best gives effect to the strategic direction articulated in ATAP, the Government Policy Statement and the Auckland Plan. A particular focus of this exercise is ensuring investments target Auckland's most significant challenges in a way that achieves long-term strategic goals and delivers value for money.

That prioritisation involved reviewing over 300 capital projects and programmes, covering initiatives on the local road and state highway networks, improvements to public transport, technology-related projects, and below-track rail projects.

Some projects are already committed, or ring-fenced by the Council, or meet on-going operational requirements. Renewals are also placed high in the programme, given the importance of maintaining and renewals existing assets before investing in new capacity. Other projects were evaluated against how they responded to ATAP's challenges and aligned with ATAP's strategic approach, as well as the extent that they addressed some of the harms of the transport system. The result was a list of projects that was prioritised according to ATAP's challenges and strategic approach, as well as addressing the harms of the transport system. This forms the basis of the Ten Year Programme presented in the next section. The criteria are presented below:

Diagram to be updated to remove Strategic Fit and Effectiveness

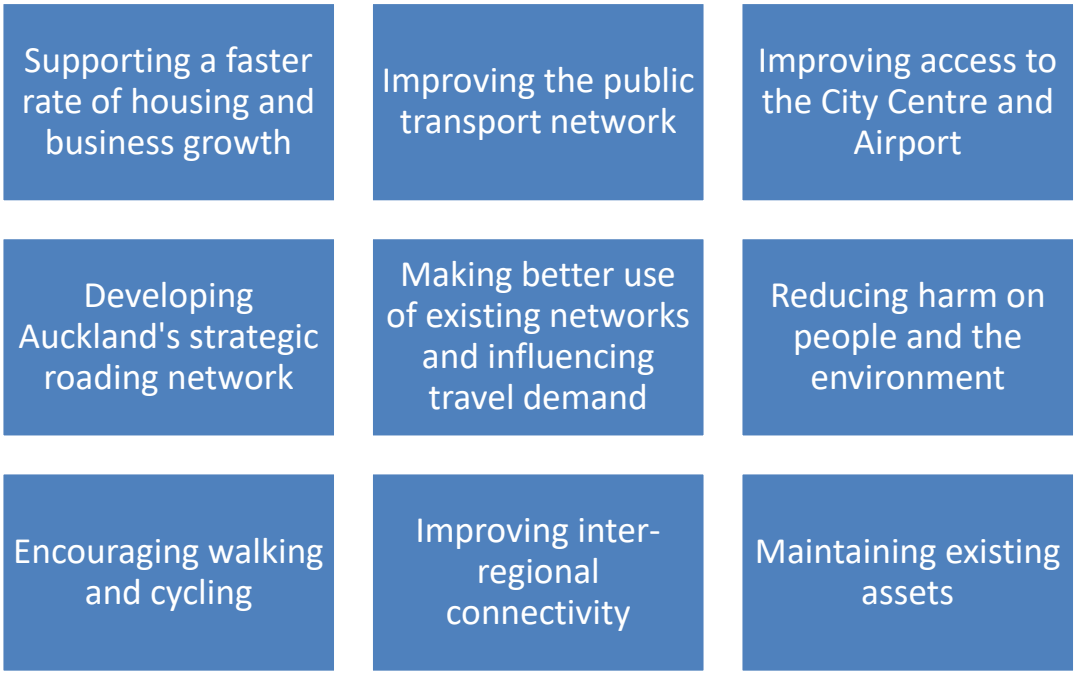


Attachment X outlines the prioritisation methodology in more detail.

5 Ten-year programme

Based on the strategic approach and prioritisation process, the regional priorities and key initiatives in this RLTP are those which are considered to contribute most to addressing the transport problems facing Auckland over the next ten years. Large-scale multi-year infrastructure improvements of this scale have long lead times as they go through the processes of options analysis, design, property acquisition, consenting, and effective procurement and construction.

The below sections explain these regional priorities and initiatives within those priority areas, which will occur over the next ten years to address the Auckland's transport challenges:



Transport Planning

Supporting the transport challenges is the need for robust transport planning to inform clear business and investment decision making, both for this 10 year programme and longer term planning (up to 30 years) being undertaken.

Statutory plans such as Auckland Transport's Asset Management Plan, the Transport Agency's State Highway Investment Proposal and the Regional Land Transport Plan provide inputs into Council's Long Term Plan and the National Land Transport Programme as needed and, along with the Regional Public Transport Plan, provide high level strategic direction to guide more detailed planning.

The introduction of the One System and Business Case approaches for transport planning necessitate a new way of planning and managing Auckland's transport system across the partner organisations. It requires much greater collaboration to enable regional strategic planning and enables a co-ordinated response to planning and investment, including incorporation of national initiatives such as the One Road Network Classification and Safer Journey systems.

Planning needs to be co-ordinated to ensure investment makes the best use of existing infrastructure/assets and that the best overall outcomes can be achieved. Using the business case approach to guide planning, in collaboration with key stakeholders, ensures that interventions can deliver against the key problems, that interventions provide value for money, and that opportunities for making better use of existing capacity are explored before new infrastructure interventions.

5.1 Supporting growth areas

Accommodating Auckland's rapid population growth requires accelerating the construction of housing and business development. Opening up currently rural land for development, or facilitating redevelopment of existing urban areas to higher densities, is frequently dependent upon the provision of new transport infrastructure and services. These investments are therefore focused on enabling growth, rather than addressing current network performance deficiencies.

The Auckland Unitary Plan provides substantial capacity in both new and existing urban areas to accommodate future growth. Realising this capacity in a way that supports the desired land use and transport outcomes requires a flexible and responsive approach to planning, funding and staging of infrastructure and services that integrates with the location and timing of development. This includes supporting development of residential areas and town centres through early investment in enabling infrastructure.

Existing urban area

Around two-thirds of Auckland's future growth is expected to occur through the redevelopment of existing urban areas to higher intensities. Transport investment within the existing urban area is necessary to unlock growth, by improving access and supporting redevelopment. These projects are typically fairly small in scale and focus on unlocking land for redevelopment or improving amenity to make areas more market attractive.

[Add in information about Auckland Plan opportunity areas when available]

[Discuss necessary investments to support Panuku's work programme]

Projects to help deliver this growth may be funded from the Local Residential Growth Fund (LRGF), which was established to provide a source of funding for public works projects across the region that are needed to meet the demands arising from additional housing in Auckland. Projects funded from this source include Hingaia Road widening, Medallion Drive, Gills Link Road and Dairy Flat/Lucas Creek Bridge improvements.

Other projects that help to address the impacts of growth include Carrington Road, supporting the development at the Wairaka Precinct, and …, as well as significant investment in public transport and walking and cycling to provide affordable and realistic transport alternatives.

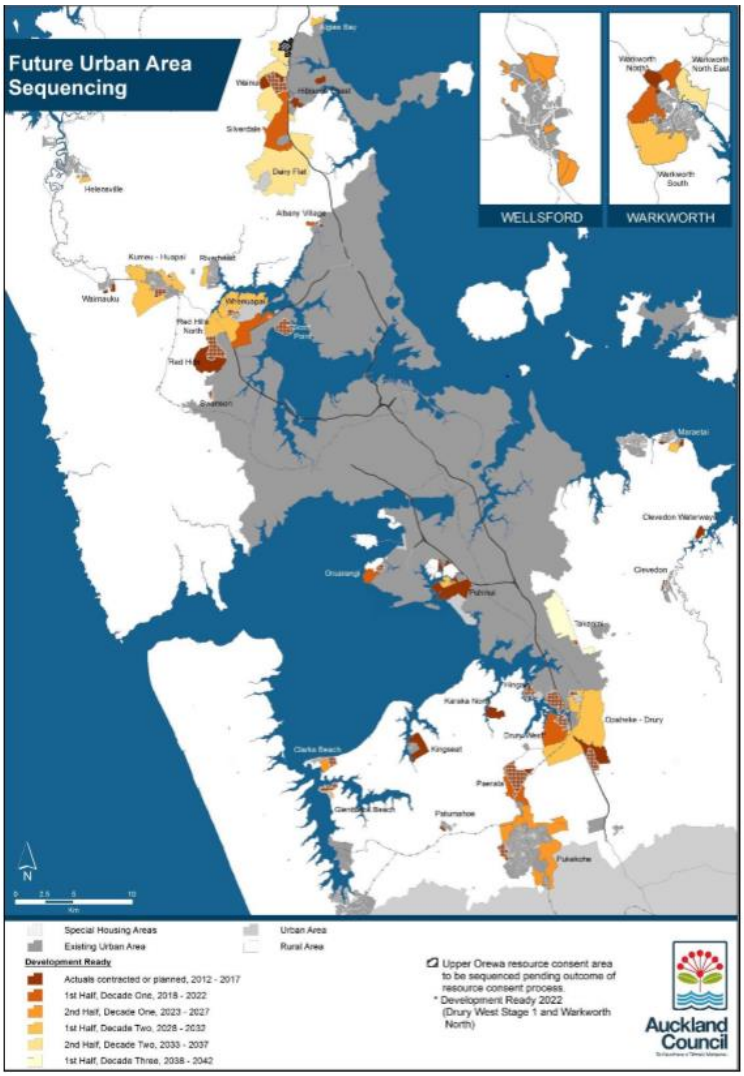
Greenfield areas

About 15,000 hectares of greenfield (mainly rural) land has been identified for development in the Unitary Plan. This includes areas zoned 'future urban' (rural land zoned for future urban development), as well rural land that has been 'live zoned' (zoned for immediate urban

development). Over the next 30 years, it is expected there will be around 137,000 new homes and 50,000 new jobs in these growth areas.

Greenfield areas need substantial investment before significant development can occur. Some of the investment is needed to open up land for development, alongside larger scale improvements needed to connect these areas to the rest of Auckland and address the impact of increased travel demands to and from these new urban areas. ATAP recommends investment is made in short and medium term projects that enable and assist growth, while working to protect routes for longer term projects.

Auckland Council's Future Urban Land Supply Strategy (FULSS) identifies a programme to sequence when future urban land will be 'development ready', as shown in [the following map]



Major new greenfields growth areas will occur in the South, NorthWest, North (Silverdale/Wainui/Dairy Flat) and Warkworth. Auckland Transport, Auckland Council and the Transport Agency have worked in partnership to assess the impacts that growth will have in these future urban areas.
A transport network plan, known as the Supporting Growth Programme, has been developed to support these future urban areas. The Programme identifies a preferred network which:

- Enables the sequence of land release specified in the Future Urban Land Supply Strategy
- Improves access to places where people live and work now, and in the future
- Increases transport choice with a strong focus on public transport, and the development of the walking and cycling network
- Supports the ongoing economic development of Auckland by providing strong connections to the wider Auckland strategic transport network
- Manages the network in a way that gets the most out of existing assets.

Southern Area

The Drury growth area, including Opaheke, Drury, Drury South and parts of Karaka is the largest greenfields area to be developed in the Auckland region, with the capacity for approximately 23,500 new dwellings. Pukekohe/Paerata is identified in the Auckland Plan as a priority satellite town, anticipated to grow to a population of 50,000 people by 2040. The transport programme for these areas includes:

- A well-connected rapid transit network with electric trains extended to Pukekohe, following electrification of the network by KiwiRail, and supported by new rail stations at Drury, Drury West and Paerata.
- Rapid transit links between the airport, Manukau, Flat Bush and Botany
- The upgrade of the Mill Road corridor from Manukau and Flat Bush to Papakura and Drury. This will help to improve safety, provide greater access to the growth areas in the south, and provide an alternative north-south route to SH1.
- In Takanini, replacing level crossings with bridges over rail lines will allow increased train frequencies, along with upgrades at Rangi Road, Taka Street and Walters Road to provide good east-west connections for the area.
- SH 22 will be upgraded in the vicinity of Paerata, and in Pukekohe a road south of the town centre will allow a bypass for trucks and other traffic. Safety improvements on SH22 will also improve travel between Drury and Pukekohe.
- Walking and cycling network will be expanded across the network to improve travel choice and accessibility in local areas.

North-West Area

The north-west growth areas of Redhills, Whenuapai, Kumeu/Huapai and Riverhead are expected to supply and additional 40,000 houses over the next 30 years, and employment areas with more than 13,000 new jobs. The transport programme for these areas includes:

- In Whenuapai and Red Hills areas, new arterial roads and improvements to existing roads will provide a strong local road network with connections to the motorway network, to support growth in the areas
- A direct motorway to motorway connection between SH16 and SH18 will provide a more efficient connection between Kumeu/Huapai and the North Shore.
- The new Westgate bus station will provide a connection to the North Western Busway. A new busway connecting Westgate to Albany will be developed in the second decade, with connections between Westgate and Huapai-Kumeu.
- Improved connections will be provided to ferry services, including higher frequency ferry services to and from Hobsonville, West Harbour and the CBD.
- Safety improvements on SH16 between Waimauku and Brigham Creek Road will help reduce serious crashes and improvement efficiency

North Area

The Wainui East, Silverdale and Dairy Flat area has the capacity to provide approximately 33,000 dwellings. The transport programme for these areas includes:

- The rapid transit network will be extended, linking Albany to Dairy Flat, Silverdale, Wainui and Grand Drive via an extension of the Northern Busway.
- New and upgraded arterial roads will help connect these growth areas. An interchange incorporating both Dairy Flat and Penlink will provide good access to the areas and east-west connections to Dairy Flat

Warkworth Area

The Auckland Plan anticipates that Warkworth will grow to a substantial satellite town of over 20,000 people. Improvements to the transport network to support this growth include:

- 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 Road of National Significance.
- The proposed Matakana Link Road, to reduce congestion and provide an alternative route from State Highway 1
- Increased public transport services are proposed between Auckland and Warkworth, with a frequent express bus service along the new Ara Tuhono Puhoi to Warkworth Road, supported by a park and ride bus station located nearby and near the Matakana Link Road and Western Collector.

5.2 Improving the strategic and connected public transport network

A continuing strong uptake of public transport use will help address congestion on key parts of the strategic road network. The developing Auckland public transport network seeks to create a single, connected service network across all modes (rail, light rail, bus, ferry, emerging mode technologies) accessed by the customer through emerging personalised digital platforms.

The network comprises four integrated service layers:

- Rapid
- Frequent
- Connector/Local; and
- Targeted.

The 'hub-and-spoke' network design comprises a core rapid and frequent network of high capacity and frequent services on dedicated routes. It links rail and busway (Rapid services) and frequent bus services with bus priority on shared arterial routes and some ferry services (Frequent services), with Connector/Local services feeding people into the Rapid and Frequent network at transport interchanges. Targeted services provide a capacity or specialist overlay as required, e.g. peak–only services.

Auckland Transport is preparing a new Regional Public Transport Plan which will outline the next steps to progress development of the network, given the implementation, or near completion of key initiatives underpinning the 2015 RPTP, in particular:

- Completion of the New Network by September 2018.
- Roll-out of the PTOM procurement framework for bus and ferry, in parallel with the New Network.
- Implementation of the Simpler Fares zonal structure for bus and rail in August 2016.

Strategic public transport network

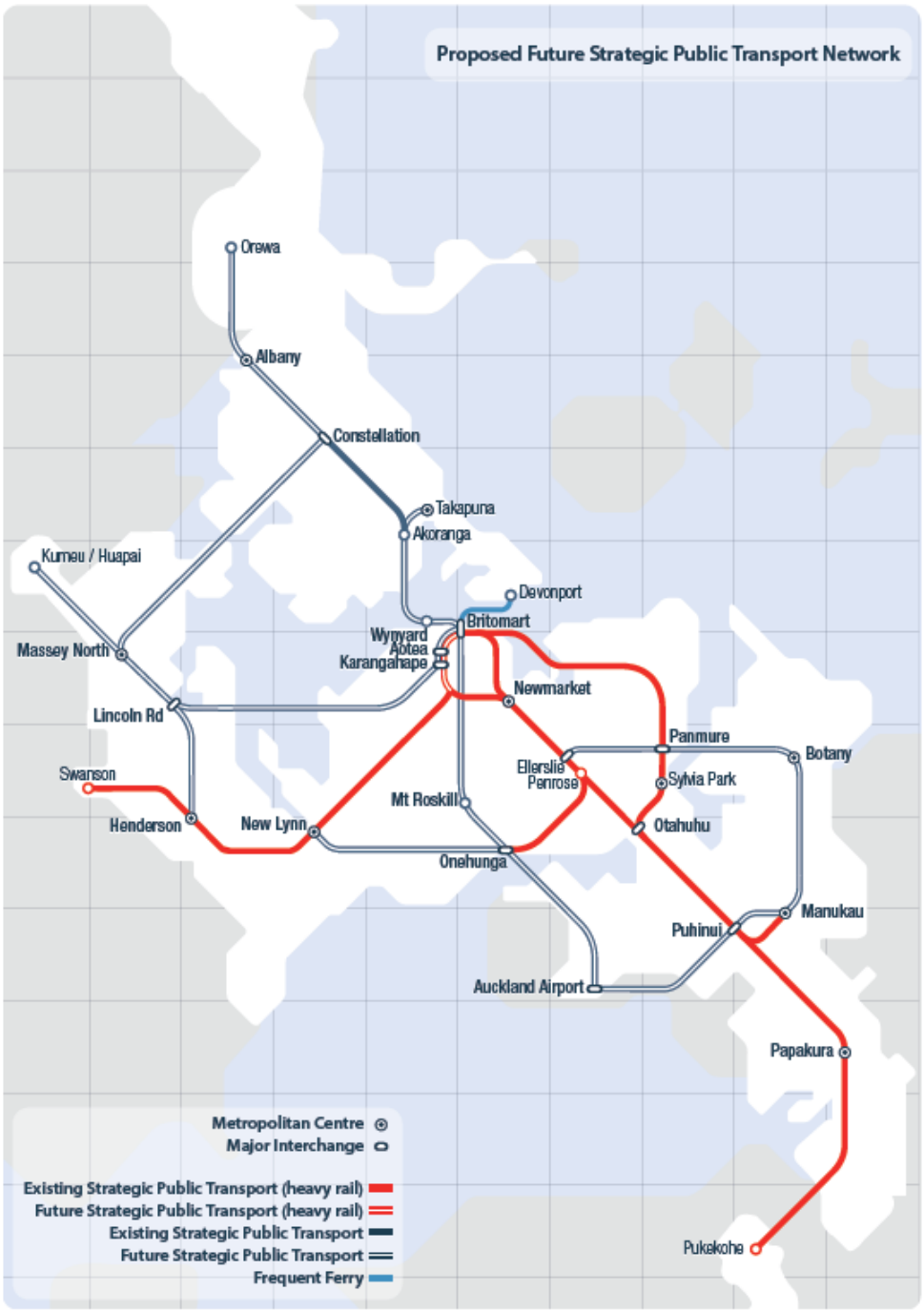
Auckland's strategic public transport network forms the backbone of the public transport system, providing for high volumes of travel to major employment centres, especially into the central area. This public transport "spine" enables frequent, high capacity services to operate in their own dedicated corridors, offering mass transit separated from private vehicles and are unaffected by road congestion.

The network barely existed a decade ago, but through a programme of upgrading and electrifying the rail system and competing the Northern Busway, the strategic public transport network now reaches into many parts of the city. This has resulted in very rapid growth rail and busway boardings and has substantially increased throughput along many of Auckland's busiest transport corridors.

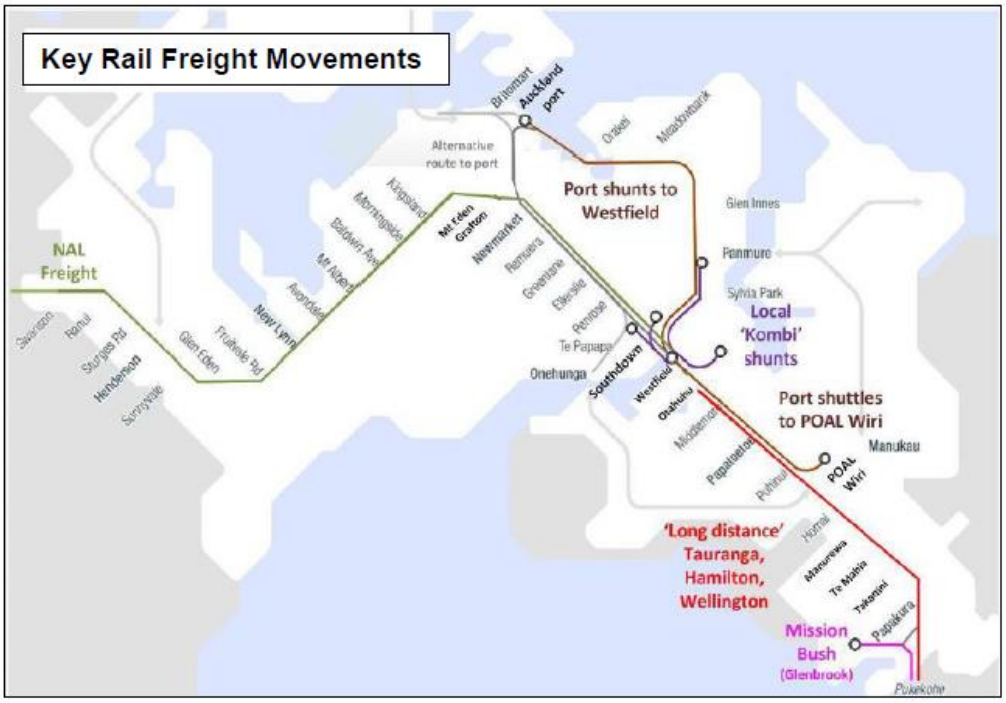
It is crucial for the strategic public transport network to play a large and increasing role in meeting the city's travel requirements. The strategy for developing the network is based on two key drivers:

1. Addressing emerging capacity constraints as demand increases; and
2. Expanding the network to improve overall corridor efficiency and throughput.

The Auckland Transport Alignment Project developed a 30 year agreed view on how the strategic network should develop over time, as well as broadly sequencing major investments.



Auckland's rail network forms a key part of both the city's strategic public transport network and freight network. Investment over the past 15 year has resulted in substantial growth to over 20 million annual rail boardings and makes up a growing proportion of public transport trips. The rail network also plays a key role in the movement of freight, especially to and from the Ports of Auckland and Tauranga.



Strong growth in passenger rail boardings and rail freight is expected to continue into the future. Meeting this growing demand will require more passenger and freight trains to be operated on the rail network, increasing conflict between services unless ongoing investment occurs. More intensive use of the rail network will also require investment to improve network resilience and address growing safety risks. Access to Britomart train station and the section of track between Westfield and Wiri rail junctions are the two most significant pinch points on the rail network and will need to be the key focus for early efforts.

Significant additional investment in rail passenger infrastructure is underway or planned to support the recent growth in patronage and address capacity constraints. The largest of these is the City Rail Link, a $3.4 billion investment jointly funded by Auckland Council and the Crown. The City Rail Link will provide a second access point to the city centre from Mt Eden, removing the current Britomart bottleneck. This will more than double the number of trains potentially able to operate on the rail network. Construction of the CRL is now well underway, with the project being delivered by CRL Limited (a crown entity owned by the Crown and Auckland Council), and expected to be completed in the 2023/24 financial year. Once complete, this 3.4km underground rail line will provide benefits to rail passengers through significant reductions in travel times, particularly from the west and improved access to the city centre.

Additional investment to support growing rail passenger and freight demand includes:

1. Two tranches of electric trains are included in the programme, to address the crowding that is becoming more of a feature on the southern and western journeys at peak times. The initial purchase of at least 15 new trains will provide much needed additional capacity, while a further tranche around the time of the opening of the CRL will support the additional patronage that is expected at that time. Provision for stabling, cleaning and maintenance facilities is also included.
2. Electrification of the line from Papakura to Pukekohe will allow the current old diesel fleet to be replaced by electric trains, and will remove the need for passengers to change trains at

Papakura. New stations will allow rail access to those new growth areas at Drury, Drury West and Paerata.

3. A third main between Westfield and Wiri. The section of track between Westfield and Wiri junctions experiences the greatest conflict between passenger and freight trains because it services Southern and Eastern Line passenger services as well as most of the highest frequency freight train paths. Constructing an additional track and upgrading the Westfield rail junction will enable better separation of passenger and freight services, enabling higher frequencies and improved reliability
4. Progressively removing road/rail level crossings to better manage safety risks and address road congestion.

Major new initiatives over the next ten years will strengthen the public transport "spine", and include:

- The North-western busway, which will provide travel alternatives from the west to the central city, and help to relieve the pressure on SH16. The busway will be progressively enhanced over the next three decades, with the first decade including the Lincoln Road to Te Atatu and Point Chevalier to Karangahape Road sections, and stations at Westgate, Royal Road, Lincoln Road, Te Atatu, Point Chevalier, Western Springs and Bond Street.
- The completion of the Eastern Busway from Panmure to Pakuranga, including the Reeves Road flyover and Pakuranga Bus Station, and through to Ti Rakau Drive and Botany. The Eastern Busway will improve transport options by making public transport, walking and cycling realistic and safe choices, and improving connections between the area and the rest of Auckland.
- The Northern Busway will be extended to Albany Bus Station, running in both directions alongside the motorway, and building on the hugely successful existing busway from Constellation Drive to the CBD. A new station will be added at Rosedale to provide another station to access the northern busway. There is also provision to extend the busway from Albany to Grand Drive near Orewa, potentially through bus shoulder lanes and associated infrastructure between Albany and Grand Drive.

Bus is, and will remain, the main mode of public transport, accounting for around XX% of PT trips. As well as these dedicated busways, the RLTP includes investment to provide bus priority lanes on all major bus routes over a fifteen year period. Roading projects such as the upgrade of Lincoln Road corridor also include adding bus lanes, high occupancy vehicle lanes and cycling lanes.

Capacity constraints are also appearing at the Downtown ferry terminal, with the risk that this may limit the ability to increase the frequency of services, particularly to Hobsonville and West Harbour. This RLTP includes funding for the redevelopment of the Downtown ferry terminal, to accommodate the future expansion of services.

Initiatives supporting public transport

Maximising benefits from improving the strategic public transport network also relies on its integration with the broader transport network and the ability of customers to access the services easily. Key initiatives to improve this integration include:

- New or expanded park and ride facilities, focused in outer parts of the city to provide access to public transport for areas with poor walk/cycle catchments or where feeder bus services are unlikely to be cost-effective or attractive.
- Walking and cycling improvements to increase the catchment size of stations on the strategic PT network.

Technology solutions, such as the HOP card and real-time travel information, have been one of the reasons for the current rapid uptake of the public transport. Other technology-related investment will allow continued enhancement, such as on-going development of real time information displays, WiFi, and Mobile applications to improve customer information on the PT network.

Travel behaviour is changing, as demographics, digital innovation, and lifestyle patterns have created demand for trips that cannot always be met by conventional public transport systems. Choices beyond the core network of PT services are problematic where household and employment density is low and cannot support frequent PT service levels. The concept of mobility as a service (MaaS) is the integration of public transport, demand-responsive services, ride-sharing, and active modes into a single, connected, personalised transport system. On their own, each of these modes are unlikely to fully meet most people's mobility needs, but in combination provide a genuine alternative to owning or using a private vehicle. This model offers people the flexibility and convenience of having a car, without the disadvantages of cost, congestion, emissions and parking. The different modes need to be cohesively planned and delivered from both a physical perspective through integrated network planning and infrastructure design, but also from an information perspective – utilising smartphone technology to provide people with access to accurate travel information, payment and ticketing that is instant and easy to use. Collaboration will be key in the delivery of MaaS, and the early stages of this have already commenced in New Zealand.

5.3 Improving access to the City Centre and Airport

Auckland is forecast to need approximately 277,000 more jobs over the next three decades. The largest share of this growth is likely to be located in the city centres and surrounds, and around Auckland International Airport.

Improving City Centre Access

Auckland City Centre and its surrounds is New Zealand's fastest growing residential area and largest employment hub. Strong growth is expected to continue over the next 30 years, to reach nearly 250,000 and a substantial increase in population, tertiary students and visitors. The City Centre is the

economic power house of the region, accounting for 20% of Auckland's GDP while only occupying 0.08% of the region's land area.

Growing travel demand to the city centre has been entirely accommodated by public transport, walking and cycling over the past 15 years, while the number of private vehicle users has remained static. This trend will need to continue as access to the City Centre and its surrounds is particularly constrained. Even greater competition for limited street space between people walking, people on bikes, people on public transport, freight, and people in cars is expected in the future. In addition to these travel demands a high degree of public amenity is needed, requiring a continual balancing between the competing demands of movement and place. This means it is imperative the transport network moves more people in fewer vehicles. This requires a continued modal shift towards public transport, walking, and cycling.

The CRL and changes to the bus network reduce this pressure by shifting passengers onto the rail network at locations outside the CBD and reduce the numbers of buses entering the CBD. However, continued growth in the CBD will increase bus volumes to the point where the CBDs capacity to cater for new buses is limited. Further bus improvements are needed on city centre corridors to support the increased bus services from the north, northwest and central isthmus.

Major new investment in bus infrastructure in the CBD is planned for this ten-year period. Significant bus terminal infrastructure and facilities are planned for Lower Albert Street, Quay Street, Wynyard Quarter and the Learning Quarter. Wellesley Street (from Halsey Street to Symonds Street) will be developed to increase the flow of buses, allowing it to be a major corridor for buses to/from the isthmus, north shore to mid-town, additional Link and crosstown services between suburbs in the east and west of the city centre. Likewise, Fanshawe and Customs Streets will be developed to accommodate the increases in north shore buses to/from the downtown area. Finally, improvements will be made to Vincent and Albert Streets to accommodate the increased volume of buses coming from the north-western busway from Karangahape Road to Britomart.

Bus efficiency improvements on City Centre corridors can only provide limited additional capacity. Mass transit between the city centre and Mt Roskill along Dominion Road and Queen Street will be required within the next decade. This will provide substantial increased capacity for public transport services through a shift to much larger vehicles that can carry many more people and will also take pressure off the highly constrained Symonds Street and Wellesley Street corridors, benefitting remaining buses and general traffic.

Improving Airport Access

Auckland Airport is the international gateway to New Zealand and key to our tourism economy. It is a major and growing regional employment hub and a key freight destination, particularly for high-value and time sensitive goods. Auckland International Airport handles around 17 million [ensure this number is up to date] passengers per year and about 15 percent of New Zealand's foreign trade by value, making it the country's third largest port (by value). The Airport and surrounding area currently employs over 30,000 people, and anticipated to grow to approximately 90,000 by 2044, making it a huge part of Auckland's economy.

A wide range of customers require access to the area for work, to travel, and for logistics movements. However, record levels of both freight and passenger air travel combined with general increases in traffic around the airport precinct has led to journey time unreliability and significant congestion. Daily trips to and from the area are expected to grow from 63,000 to 140,000 over the next 30 years, and capacity improvements are required along both the northern (SH20A) and eastern (SH20B) access points to the area.

A programme of investments is required to improve customer journey experience. Initially access can be improved with the implementation of more immediate and short-term public transport improvements and some targeted road capacity increases. However, space constraints with the Airport area and capacity challenges on the main access corridors will make it increasingly difficult to serve the area through road and bus improvements alone.

A number of different initiatives are included in this RLTP to improve airport access. Improvements to SH20A, including constructing a trench to separate motorway and local traffic at the SH20A/Kirkbride Road intersection, providing for future bus shoulder lanes and signalising some intersections are already underway and will provide a safer, more reliable route to and from the airport and will increase freight efficiency.

More immediate and progressively enhanced rapid, high frequency bus services will be introduced, taking advantage of bus/high occupancy lanes on SH20A and SH20B. The improvements will seek to maximise the investments already made, such as electrification of the rail network, with a proposed upgrade of the Puhinui Rail Station to optimising the use of the existing south and east area bus network.

These will complement developments undertaken by Auckland Airport to improve pedestrian facilities, bus lanes and stops, lighting and cycling facilities within the airport precinct.

The longer term direction is to provide enhanced transit connections between the Airport and the City Centre, and to Manukau and Botany. The extension of mass transit to the airport would be completed in the next decade. Funding is also included to investigation into mass transit from Auckland Airport to Botany via Manukau with bus to light rail transition and implementation staging, including staged additional capacity on SH20B and SH20 **and new southbound link from SH20A to SH20**.

5.5 Develop Auckland's strategic road network

Auckland's strategic road network, including both State highways and the most important arterial roads, forms the backbone of the road network, providing for a wide variety of travel and the highest traffic volumes, linking major parts of Auckland and the rest of NZ, carrying the heaviest freight volumes and providing access to the Port and Airport. Through-movement of people and goods is the primary consideration and access is limited or controlled.

Emphasise freight story – key destinations and key routes, scale of growing demand

Given the role of the service sector in driving Auckland's economy, the major industrial employment areas such as Onehunga/Penrose/Mt Wellington, East Tamaki, Wiri and the Rosebank Road area are

forecast to see slower growth. Auckland's freight task is, however, forecast to grow faster than commuter and education related travel as the economy grows. These areas will remain important employment hubs and will generate significant freight travel movements. It is important to limit the growth in congestion on the freight network, particularly in the interpeak and improve the efficiency of the connections to major freight hubs, especially the ports and airports

It is crucial for the strategic road network to play a large and increasing role in meeting the city's travel requirements. The strategy for developing the network is based on four key drivers:

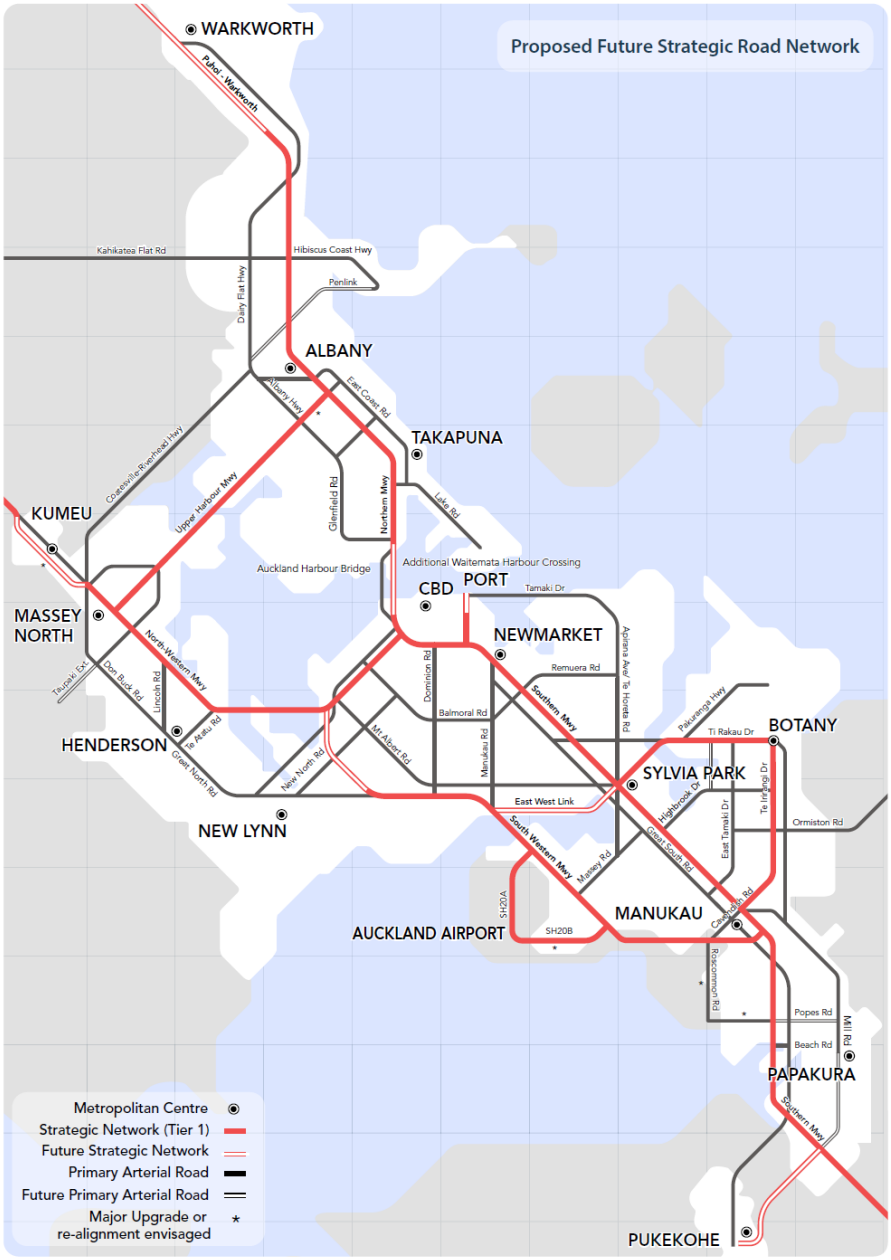
- Focusing primarily on improving the efficiency of existing corridors by better balancing demand and capacity.
- Providing new corridors in greenfield areas to support growth and improve connections to existing urban areas.
- Focusing additional capacity primarily on outer parts of the network, along the Western Ring Route and improving Port and Airport access.
- Maximising benefits from new technology to increase vehicle throughput and occupancy levels.

The Strategic Road Network

The congestion on the strategic road network, both at peak and increasingly in inter-peak periods is a significant concern. The completion of the Western Ring Route through the Waterview Connection demonstrates the benefits that can arise from the completion of gaps in the strategic road network.

It is critical for implementation of the strategic road transport network to be planned as a cohesive whole, across the different agencies that may implement parts of the network and to make sure different components of the network come together to maximise its performance. This planning work will need to focus on determining appropriate timing and sequencing.

The Auckland Transport Alignment Project developed a 30 year agreed view on how the strategic road network should develop over time, as well as broadly sequencing major investments (Map x).



Major investments included in this RLTP are:

- Northern Corridor Improvements (NCI) - The NCI are a range of inter-related projects on SH1 and SH18, covering:
  - Converting the last remaining part of SH18 to full motorway standard with motorway to motorway ramps to the SH1 north along with extra lanes.
  - Additional motorway lanes in both directions will be added on the Northern Motorway (SH1) between Greville Road and Constellation Drive.
  - The extension of the Northern Busway from Constellation Bus Station to Albany Bus Station (discussed under PT improvements).
  - Walking and cycling improvements

- Southern Corridor Improvements (SCI) – The SCI cover the stretch of Southern Motorway (SH1) from the SH20/SH1 connection at Manukau down to Papakura in the south. The project is well underway and expected to be completed by the end of 2019. The SCI include additional lanes in

both directions, an upgraded Takanini Interchange and a 4.5km shared use pedestrian / cycle path.

- Connections between SH1 and SH20 at Onehunga will be improved with the construction of the East-West link. It involves a new transport link on northern side of the Māngere Inlet between SH20 at Onehunga and SH1 at Mt Wellington, with improvements on SH1 extending down to Princes Street. Walking and cycling is also addressed, with over 16km of new walking and cycling facilities. The project fits within the wider Auckland motorway network and connects to the Western Ring Route which provides an alternative route around the city and improve access to regions in the upper North Island. With over half of the country's freight journeys taking place across the upper North Island and these journeys are expected to double by 2035, this project will promote growth and support Auckland's future prosperity by making it quicker and less expensive to move freight.
- Additional Waitematā Harbour crossing - further work on the business case as well as pre-implementation work on an additional Waitematā Harbour crossing. Improvements to SH20A and 20B outlined above in the section on Improving Airport Access.

In addition, new or upgraded arterial roads are planned:

- Mill Road - the Redoubt Road-Mill Road corridor will be upgraded in 2 phases. The northern section from State Highway 1 at Manukau to the intersection of Mill Road and Popes Road. This upgrade includes A 4-lane road and upgraded intersections, improved public transport infrastructure and services along Redoubt Road to SH1 more reliable bus journey times, the ability to move more people and address constraints on the public transport network, on-road cycle lanes and shared path facilities, and safer pedestrian footpaths and crossings. The southern section from the Mill Road/Popes Road intersection will include new connections through to Papakura and Drury, supporting growth in the south. The fully upgraded corridor will improve travel times and safety for drivers, pedestrians and cyclists, and provide an alternative north-south corridor in case of major disruption or emergencies on other southern arterial routes.
- Penlink is a four lane arterial connecting the Whangaparaoa peninsula with SH1 at Redville, and is also part of ATAP's strategic road network. It will improve travel times and reliability for Whangaparaoa commuters and improve network performance, safety and resilience. It will also reduce traffic through the Silverdale Interchange, thereby freeing up transport capacity for housing development in Wainui, Silverdale West and approved development on the Whangaparaoa peninsula.
- Lincoln Road from Te Pai Place to SH16 will be upgraded, including adding bus lanes, high occupancy vehicle lanes and cycling lanes, and the Eastern Busway (a mix of roading and public transport projects including the Reeves Road flyover, will relieve pressure on the Panmure-Pakuranga road corridor.

5.5 Network Optimisation and travel demand

Network Optimisation

However, the vast majority of Auckland's future transport network already exists, and adding substantial additional capacity has substantial financial costs and often faces practical barriers. Opportunities to add new transport corridors within our existing urban areas are limited, and most of the growth in Auckland's travel demand will need to be accommodated on the existing routes. A greater intensity of development in Auckland also means more people living and working in close proximity of major transport corridors and a growing role of Auckland's streets and roads in contributing to the city's public space requirements.

Accommodating this wide variety of demands at increasing intensities will require a far stronger focus on optimisation – ensuring each route performs the functions required of it. This involves a stronger focus on network-level planning to identify and manage key routes, clear criteria to balance different user requirements and conflicts between through-movement and amenity.

The Roads and Streets Framework is the primary tool Auckland Transport has developed to assist in resolving competing issues and guiding difficult decisions like removing on-street parking, upgrading intersections, extending bus lane operating hours or introducing freight priority measures.

The RLTP includes substantial investment in network optimisation. "Network optimisation" covers a wide range of lower-cost high-effectiveness initiatives that could improve journey time predictability and people's ability to make the best choice for their travel needs. This includes initiatives such as maximising the efficiency of traffic signals and corridors, active use of transport operation centres to minimise the impact of disruptions, improving travel choices (such as cycling, walking and public transport), and providing timely and accurate information to travellers. For example, Auckland Transport is currently trialling a "dynamic lanes" project on Whangaparaoa Road, which involves a moving middle lane to accommodate peak traffic flows. A similar concept has been in place for many years on the Auckland Harbour Bridge.

Shift to greater focus on influencing travel demand

ATAP highlighted the importance of improving the balance between transport demand and the capacity of infrastructure and services in achieving a performance step-change. New and emerging technologies provide new opportunities to influence demand, including moving over time to a smarter transport pricing system that varies charges according to the time and location of travel.

The Auckland Smarter Transport Pricing Project has commenced and will undertake an investigation to inform decisions on whether or not to proceed with introducing smarter transport pricing in Auckland. This will involve a detailed options analysis process aimed at developing a system that can improve the performance of Auckland's transport network in a way that supports wider economic, social and environmental outcomes.

Influencing travel demand is about more than just moving to smarter transport pricing. Technology developments provide exciting opportunities to increase private vehicle occupancy rates through ridesharing, carpooling and other emerging shared mobility options like shared taxis and taxi buses.

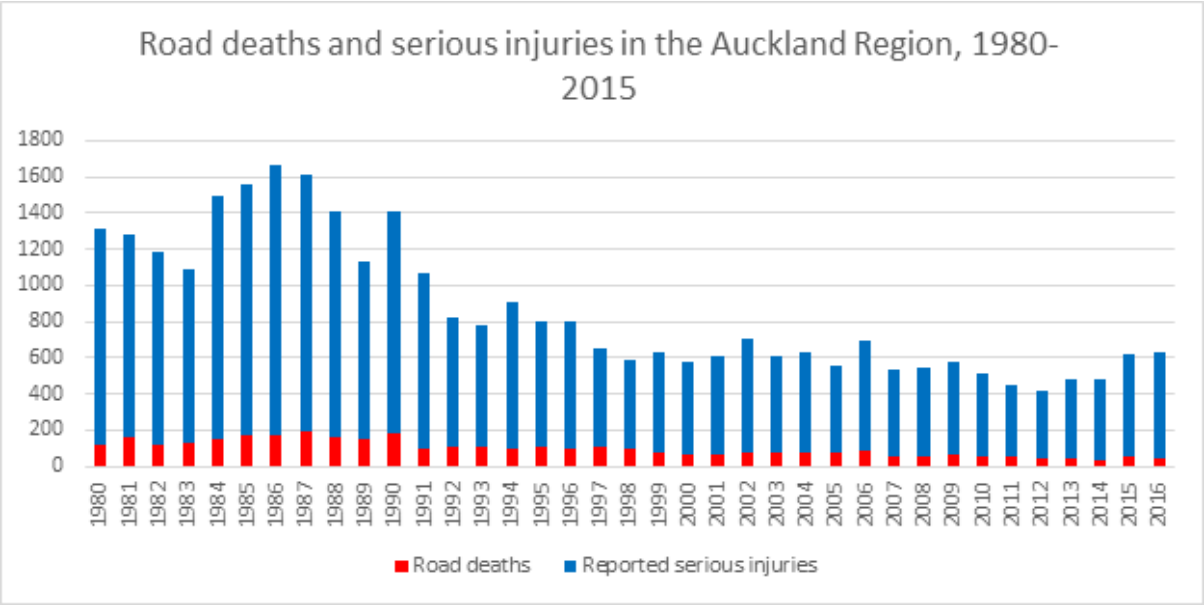
One element of demand management is encouraging higher vehicle occupancy. There are already initiatives in place to encourage higher vehicle occupancy, including priority lanes for high-occupancy vehicles, carpooling applications and ride share parking spots at public transport hubs. Existing programmes such as travel planning, walking school bus, travel management initiatives with businesses also help to manage demand. Longer-term initiatives may include connected or autonomous vehicles and ride share platforms.

Innovation in the area of ridesharing is expected to be led by the private sector, but public sector agencies have a role to play in encouraging progress through understanding and reducing regulatory barriers, promoting pilot schemes, ensuring open access to data and exploring opportunities to reallocate road space where it increases overall throughput.

5.6 Reducing adverse impacts

The transport network currently has multiple adverse impacts on Auckland's people and communities. These can range from the impact of transport initiatives on place-making in our streets neighbourhoods and town centres in terms of visual amenity, sense of community, physical connections between key local destinations and support for active modes of transport, through to serious environmental issues and deaths and serious injuries. Environmental issues can include air pollution, contamination of waterways through run-off, flooding and stormwater overflow due to infrastructure being unable to cope with extreme weather events, visual and noise pollution, loss of green space, disruption to ecosystems with the construction of new transport infrastructure, and soil and groundwater contamination. An integrated, sector wide response from all safety partners is necessary to improve the safety performance of the system.

One of the most significant adverse impacts associated with the transport networks is on safety. In 2015 and 2016 Deaths and Serious Injuries on the Auckland network have increased. Particularly impacted are vulnerable road users. Half **[check]** of these serious injuries involve pedestrians, cyclists and motorcyclists. This reflects the increasing vulnerability of these growing alternative transport choices on a local road network that is struggling to accommodate them safely. Additionally, over the past five years there has been a 54% increase in deaths and serious injuries on the state highway network, of this the bulk of were serious injury category.



Recent road safety progress has seen a reduction in road deaths and serious injuries among children walking or cycling to school which is related to a combination of speed management, enforcement and road safety promotion. Alcohol related road deaths and serious injuries have also decreased by 23% since the introduction of a lower drink-drive limit in December 2014.

However, future reductions in road deaths and serious injuries will hinge on greater investment in the engineering of safe urban and rural roads, speed management, and improved safe system management. The six main components in the Road Safety Programme include Safe System Management, Road Safety Promotions (in combination with NZ Police), Safer Communities (with a focus on Pedestrian Accessibility and Safety), High-risk Roads & Intersections, Speed Management and Minor Safety Improvements. These are part of a cross-agency approach, called RoadSafe Auckland, comprising AT, the Transport Agency, the Police and ACC.

Benefits of the Road Safety Programme include reduced deaths and serious injuries, reduced air and noise pollution, increased levels of active transport, health benefits, increased public transport (and reduced private vehicle) usage, and increased public confidence.

This RLTP includes low-cost safety improvements, and the Safer Communities and Speed Management programmes. It also includes investment in high risk rural and urban roads and intersections. The road network is assessed to identify high-risk parts of the network including 300+ high-risk intersections and up to 1,000 km of high-risk roads. We expect around 4-5 urban and 3-4 rural highest priority projects to be selected annually, based on the problems identified.

Safety-related projects on state highways include at SH1 Dome Valley, SH22-SH1 (Drury) to Paerata, and Brigham Creek to Waimauku on SH16 and will improve key linkages, capacity and coverage across Auckland and to surrounding regions.

The RLTP also includes funding to address safety concerns at level crossings. Initiatives may include automatic gates and pedestrian level crossings, level crossing closures and barrier arms for level crossings.

5.7 Encouraging walking and cycling

Walking and cycling contribute to a wide range of important outcomes, including health benefits, reducing pollution and providing alternatives to traffic congestion. There is a significant opportunity for walking and cycling to play more substantial roles in contributing to a more effective Auckland transport system.

Cycling

The opportunity for increased cycling in Auckland is to:

- Play an increased role for short-medium distance commuting trips, with particular value where it can shift trips off congested road and public transport networks
- Provide connectivity to Auckland's developing Rapid Transit Network, increasing the reach and transport accessibility to jobs and other opportunities provided by public transport
- Improve transport accessibility for groups with lower levels of transport choice, including providing a low-cost, convenient transport option for children and young people and other people with poor access to public transport or private vehicle choices
- Provide a convenient transport choice for everyday household trips, taking pressure off networks serving key Auckland centres.

Increased uptake of cycling can reduce a number of important negative impacts of Auckland's current transport system, including:

- Reducing negative health impacts associated with high dependence on motorised transport and sedentary lifestyles;
- Reducing air, noise and greenhouse gas emissions that impact on local environments and contribute to climate change.

Approximately 6.5 percent of Aucklanders currently commute using active modes (walking or cycling). The percentage is much higher for those living close to the city centre (around 20% for those living in the Waitemata Local Board area). Cycling accounts for less than one percent of all household trips and around one percent of commuter trips.

The Cycling Programme proposed in the RLTP seeks to increase cycling mode share to three percent by 2028 and reduce deaths and serious injuries among cyclists by 20 percent in the same period. This will be achieved through provision of safe and attractive cycling infrastructure focusing on access to the city centre and key rail or bus stations. Encouraging people to access public transport hubs by walking or cycling will reduce congestion and car parking demand around stations. Encouraging walking and cycling also has significant environmental and health benefits for Aucklanders.

The Cycling Programme will also focus on short trips, less than 7kms. Aucklanders living in the city centre and adjacent suburbs have an average commuter trip of 5.1kms. Across the region the majority of journeys between 8am and 9am are education related, with an average journey length of less than 2km. Encouraging people to walk or cycle for these journeys frees up capacity in the transport network for journeys that need to be made by vehicle.

The infrastructure investment will be supported by a range of behaviour change activities, supporting infrastructure such as bike parking facilities at public transport stations, speed management and a key focus on innovations such as cycle share. Perceptions of safety are key for encouraging people to walk or cycle. The programme will aim to provide facilities that are safe and accessible for people of all ages and abilities.

In addition, projects such as Mill Road, Lincoln Road, NCI and the East-West Link all include walking and cycling components as part of their design.

5.8 Maintaining existing assets

Over half of Auckland's future transport investment will need to be on maintaining, operating and renewing existing and future assets. AT's road network assets have a total replacement value of $11.974 billion and a (depreciated) value of $7.834 billion, and these assets are depreciating by $217 million a year or almost $600,000 per day. AT's public transport assets have a replacement value of 1.376 billion and a depreciated value of 1.138 billion (close to the replacement value, because most of Auckland's public transport assets are relatively new). The network is still growing, with a new bus/rail interchange recently opened in Otahuhu and construction underway on the City Rail Link.

Around a quarter of all transport investment over the next 30 years is expected to be spent on maintaining, operating and renewing existing assets. Improving value for money from these activities is therefore a high priority for AT. Auckland Transport's draft Asset Management Plan (AMP) sets out the organisation's priorities in respect of the maintenance and renewal of its assets. The bulk of renewals funding will continue to be spent maintaining existing assets in their current condition, but several changes are anticipated under the new AMP:

- Focus road asset investment on busy roads by prioritising these over (for example) pavement renewals on less busy roads;
- Support the transformational shift to public transport by keeping pace with the inevitable increases in renewals that will occur with the expansion of the public transport system and increases in service frequency;
- Integrate renewals with new capital projects including minor improvements, safety upgrades and traffic operations; and
- Ensure that all consequential costs arising from the maintenance and renewals of new assets are taken into account over the expected life of these assets

Auckland Transport is also bringing its renewals practice into line with the One Network Road Classification recommendations developed jointly by the Transport Agency and Local Government New Zealand. Under the new system, 18% of Auckland's roads (by length) are classified as Regional or Arterial. There will be no change to the level of service on these busy roads, which carry 73% of Auckland's vehicle travel. However, major rehabilitation of local residential roads will be undertaken later in their lifecycle – by up to five years - than the previous practice. There may be some impact on resealing expenditure, but overall the new approach is expected to offer better value for money, with minimal change to the user experience of roads.

NZTA renewals and maintenance to come

5.9 Improving Inter-regional connectivity

Auckland plays a huge role in the national economy, and is a critical link between Northland and Waikato/Bay of Plenty. Ports of Auckland is the country's largest import container port by volume and value. Approximately $26.4 billion in trade passes through the port annually which equates with approximately 31 percent of New Zealand's total trade. Auckland International Airport handles and about 15 percent of New Zealand's foreign trade by value, making it the country's third largest port (by value) behind Auckland's sea port and the Port of Tauranga. Auckland's freight volume is projected to increase by 78 percent over the next 30 years.

The Tranport Agency's Long-term Strategic View (LTSV) notes that providing a strong inter-modal network supports economic growth and investor confidence. Auckland's inter-regional transport connections to Northland, Waikato and Bay of Plenty (all of which are in the first or second tranche of designated Regional Development Areas) are of particular importance to the national economy, with the Upper North Island being home to more than 50% of New Zealand's population.

The LTSV has identified particular challenges to inter-regional transport in the Upper North Island, in particular constraints on the strategic road and rail network where they intersect with local traffic in urban areas, and lack of integrated strategic land use and transport planning. To address these challenges, the LTSV focuses on ensuring a safe corridor that can deliver reliable journey times on State Highway One between Auckland and Whangarei; ensuring strategic connections between Drury and Tauranga (via the Waikato Region); and addressing the challenges of growth in Auckland, Hamilton and Tauranga.

Specific initiatives to improve connections between the Auckland and Northland regions include the Puhoi to Warkworth and Warkworth to Wellsford highways, which aim to improve safety, resilience, throughput and travel time reliability, as well various state highway initiatives in Northland. To the south, the Waikato Expressway will be complemented by on-going improvements on Auckland's Southern Motorway intended to increase throughput.

6 Funding issues and funding envelopes

While there will continue to be pressure on funding to deliver all the projects required, the region must be able to fund the right projects at the right time. This requires continued strategic planning, clear prioritisation and a high level of agreement been Central Government and Auckland as a whole.

Details of the prioritised capital programme is included in section xx, but the following table provides an overview of the funding requirements across the key transport organisations. The table below provides a more detailed summary of funding requirements by category:

Auckland Transport	Transport Agency	Below Track Rail
Inflated	Current $	Current $
$14.536 billion	$5.230 billion	$0.726 billion

Operating Expenditure and Renewals[NS(4]]	**2018/19 - $'000**	**2019/20 - $'000**	**2020/21 - $'000**	**2021/22 to 2027/28 - $000**
City Rail Link				
Mass Rapid Transit				
Bus Services, Maintenance, Operations and Renewals				
Ferry Services, Maintenance, Operations and Renewals				
Rail Services (inc. Project SaFE), Maintenance, Operations and Renewals				
Other PT				
Total Public Transport				
Local Roads Maintenance, Operations and Renewals				
State Highways Maintenance, Operations and Renewals				
Dept of Conservation Maintenance, Operations and Renewals				
Total Roads				
Auckland Transport, Transport Planning				
State Highways, Transport Planning				
Road Safety, Walking, Cycling and TDM				
Parking and Enforcement				
Total Other				
Total All Activities				

Capital Expenditure	**2018/19 - $'000**	**2019/20 - $'000**	**2020/21 - $'000**	**2021/22 to 2027/28 - $000**
City Rail Link Limited				
Auckland Transport				
NZ Transport Agency				
Kiwirail				
Department of Conservation				
Total Capital Expenditure	**0**	**0**	**0**	**0**

The project list was then evaluated using the ITP calculator. The ITP Calculator is a multi-criteria assessment tool, and has been substantially revised to focus on addressing the challenges identified by the ATAP project, and minimise harm arising from the transport network, in a way that is consistent with ATAP's agreed Strategic Approach – including through an emphasis on value for money. Committed projects, projects with ring fenced council funding, programmes meeting on-going operational requirements, and renewals were placed at the top of the programme. The ITP Calculator has the ability to change the priority of projects in the capital programme by changing the weighting of various criteria to reflect different policy priorities.

Given the uncertainties around funding from Auckland Council and the revision of the GPS, the draft RLTP presents the capital programme as a whole ($14.5 billion). However, options are available for prioritising different outcomes, in particular weighting the relative priority of public transport against projects supporting greenfields growth.

Add discussion of consultation options, once finalised

7 Measuring outcomes

To come - Outcome measures consistent with the Statements of Intent of both AT and the Transport Agency (and KiwiRail)

Will be aligned to problems/initiatives:

- Access to employment
- Congestion
- Deaths & serious injuries
- Cycling mode share

8 Prioritised list of projects

The following tables show the prioritised list of projects which form the basis of the funding requests for Auckland Transport, the Transport Agency, KiwiRail and City Rail Link Limited for the Regional Land Transport Plan 2018-28.

Not all activities in the detailed tables are expected to receive subsidy from the Transport Agency through the National Land Transport Programme. The programme shows all significant land transport projects and activities that will be carried out in Auckland over the next three years in detail, and the proposed programme for the 2021-28 programme, however this will be further evaluated for the 2021 Regional Land Transport Plan review.

Details of Projects and Priorities

Projects with Commitments (incl. Ring-fenced)					2018/19	2019/20	2020/21	2021/22 to 2027/28
					$'000	$'000	$'000	$'000
								0
								0
								0
								0
								0
								0
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								0

On-going Operational Requirements					2018/19	2019/20	2020/21	2021/22 to 2027/28
					$'000	$'000	$'000	$'000
								0
								0
								0
								0
								0
								0
								0
								0

Priority	Ranked Capital Projects	RLTP Profile	Organisation	Transport Agency Work Category	Phase(s)	2018/19	2019/20	2020/21	2021/22 to 2027/28
						$'000	$'000	$'000	$'000
1									0
2									0
3									0
4									0
5									0
6									0
7									0
8									0
9									0
10									0
11									0
12									0
13									0
14									0
15									0
16									0
17									0
18									0
19									0
20									0
	etc								
	Parking Initiatives - considered outside of prioritisation methodology					2018/19	2019/20	2020/21	2021/22 to 2027/28
						$'000	$'000	$'000	$'000
									0
									0
									0
									0
									0
									0
									0
									0
									0

Auckland Rail Initiatives (KiwiRail) - considered outside of prioritisation methodology	2018/19	2019/20	2020/21	2021/22 to 2027/28
	$'000	$'000	$'000	$'000
				0
				0
				0
				0
				0
				0
				0
				0
				0

Department of Conservation Initiatives - considered outside of prioritisation methodology	2018/19	2019/20	2020/21	2021/22 to 2027/28
	$'000	$'000	$'000	$'000
				0
				0
				0

Appendix 1: Legislative Requirements

The legislative requirements for Auckland's RLTP are contained in the Land Transport Management Act 2013 (LTMA).

1.1 Core requirements

LTMA S14 Core requirements of regional land transport plans	How this requirement is met in the RLTP
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—	
"(a) be satisfied that the regional land transport plan—	
"(i) contributes to the purpose of this Act; and	Chapters X to X set out how this plan contributes to an effective, efficient, and safe land transport system in the public interest.
"(ii) is consistent with the GPS on land transport; and	Auckland Transport considers that this RLTP is consistent with the draft GPS released in July 2017, and will take the final GPS into account in finalising this RLTP.
"(b) have considered—	
"(i) alternative regional land transport objectives that would contribute to the purpose of this Act; and	
"(ii) the feasibility and affordability of those alternative objectives; and	
"(c) have taken into account any—	
"(i) national energy efficiency and conservation strategy; and	The Transport goal of the NEECS is "A more energy efficient transport system, with a greater diversity of fuels and alternative energy technologies." Energy efficiency and alternative fuels were among the criteria used to evaluate projects as set out in [Appendix X].
"(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	Auckland Transport worked closely with Auckland Council in the preparation of this RLTP, to ensure that it was consistent with the Unitary Plan and Auckland Plan.
"(iii) likely funding from any source."	Chapter X discusses funding sources for Auckland's transport projects, and Chapter X discusses the likely funding available overall.

1.2 Form and content requirements

LTMA S14 Form and content of regional land transport plans	How this requirement is met in the RLTP
(1) A regional land transport plan must set out the region's land transport objectives, policies, and measures for at least 10 financial years from the start of the regional land transport plan.	Objectives, policies, and detailed performance measures are included in Chapters XX of this RLTP.
(2) A regional land transport plan must include—	
"(a) a statement of transport priorities for the region for the 10 financial years from the start of the regional land transport plan; and	As set out in chapters XX.
"(b) a financial forecast of anticipated revenue and expenditure on activities for the 10 financial years from the start of the regional land transport plan; and	Expenditures and revenues are covered in Chapter XX.
"(c) all regionally significant expenditure on land transport activities to be funded from sources other than the national land transport fund during the 6 financial years from the start of the regional land transport plan; and	Chapter XX includes all regionally significant expenditure on land transport including activities funded 100 percent by Auckland Council, KiwiRail projects, and all NZTransport Agency projects funded from Government sources outside the NLTF.
"(d) an identification of those activities (if any) that have inter-regional significance.	Chapter XX discusses projects of interregional significance.
"(3) For the purpose of seeking payment from the national land transport fund, a regional land transport plan must contain, for the first 6 financial years to which the plan relates,—	
"(a) for regions other than Auckland […]	
"(b) in the case of Auckland, activities proposed by Auckland Transport; and	All activities proposed by AT are included.
"(c) the following activities that the regional transport committee decides to include in the regional land transport plan:	
"(i) activities proposed by approved organisations in the region or, in the case of Auckland, by the Auckland Council, other than those activities specified in paragraphs (a) and (b); and	Auckland Council's transport planning activities are included in Chapter XX.
"(ii) activities relating to State highways in the region that are proposed by the Agency; and	All Transport Agency (Highway and Network Operations) activities that were submitted for inclusion in this RLTP have been included.
"(iii) activities, other than those relating to State highways, that the Agency may propose for the region and that the Agency wishes to see included in the regional land transport plan; and	All Transport Agency (Highway and Network Operations) activities that were submitted for inclusion in this RLTP have been included.
"(d) the order of priority of the significant activities that a regional transport committee includes in the regional land transport plan under paragraphs (a), (b), and (c); and	The prioritisation methodology is set out in XX and Appendix XX, and the prioritised list of projects is in Chapter XX
"(e) an assessment of each activity prepared by the organisation that proposes the activity under paragraph (a), (b), or (c) that includes—	AT has included in this RLTP all information supplied by the Transport Agency Highway and Network Operations in support of requirements (i) through (v).
"(i) the objective or policy to which the activity will contribute; and	Objectives and policies are included in each of the Activity chapters.
"(ii) an estimate of the total cost and the cost for each year; and	Costs are included in each of the Activity chapters.
"(iii) the feasibility and affordability of those alternative objectives; and	Timing and project phases are included in Chapter XX.

LTMA S14 Form and content of regional land transport plans	How this requirement is met in the RLTP
"(iv) the expected duration of the activity; and	Proposed funding of activities is included in each of the Activity chapters.
"(v) any proposed sources of funding other than the national land transport fund (including, but not limited to, tolls, funding from approved organisations, and contributions from other parties); and	
"(vi) any other relevant information; and	
"(f) the measures that will be used to monitor the performance of the activities.	KPIs and targets are set out in Chapter XX.
"(4) An organisation may only propose an activity for inclusion in the regional land transport plan if it or another organisation accepts financial responsibility for the activity.	Funding sources and constraints are discussed in Chapter XX and XXs.
"(5) For the purpose of the inclusion of activities in a national land transport programme,—	
"(a) a regional land transport plan must be in the form and contain the detail that the Agency may prescribe in writing to regional transport committees; and	AT have followed all Transport Agency guidelines in the preparation of this RLTP.
"(b) the assessment under subsection (3)(e) must be in a form and contain the detail required by the regional transport committee, taking account of any prescription made by the Agency under paragraph (a).	The Transport Agency has been closely involved in the preparation of this RLTP and has not raised any issues with the level of detail of financial and policy information presented.
"(6) A regional land transport plan must also include—	
"(a) an assessment of how the plan complies with section 14; and	Chapter XX sets out how this RLTP contributes to the Act, the GPS, and the Auckland Plan.
"(b) an assessment of the relationship of Police activities to the regional land transport plan; and	Road Safety priorities set out in Chapter XX - Safety have been agreed with NZ Police.
"(c) a list of activities that have been approved under section 20 but are not yet completed; and	Chapter XX includes all capital projects for which AT or the Transport Agency will incur expenditure from 1 July 2018, including the completion of approved projects.
"(d) an explanation of the proposed action, if it is proposed that an activity be varied, suspended, or abandoned; and	[[Need to review closer to the time whether there are any variations to note here]]
"(e) a description of how monitoring will be undertaken to assess implementation of the regional land transport plan; and	KPIs are discussed in Chapter XX.
"(f) a summary of the consultation carried out in the preparation of the regional land transport plan; and	Chapter XX sets out consultation to date and the process for consulting on this RLTP.
"(g) a summary of the policy relating to significance adopted by the regional transport committee under section 106 (1); and	Appendix 3 sets out AT's significance policy and the process for varying this RLTP.
"(h) any other relevant matters.	

1.3 Consultation requirements

18 Consultation requirements	Amended (simplified) 2013
(1) When preparing a regional land transport plan, a regional transport committee—	
"(a) must consult in accordance with the consultation principles specified in section 82 of the Local Government Act 2002; and	Auckland Transport is consulting on this RLTP alongside Auckland Council's consultation on the LTP and in accordance with LGA principles.
"(b) may use the special consultative procedure specified in section 83 of the Local Government Act 2002	Auckland Council will follow the special consultative procedure in its consultation on the LTP, which includes the same transport work program as this RLTP.
(2) […] Auckland Transport must consult both the governing body and each affected local board of the Council	Auckland Transport has worked closely with the Auckland Council governing body and has held pre-consultation meetings with local boards, iwi and transport stakeholders as part of the preparation of this RLTP.
18A[3] Combining consultation processes Auckland Transport complies with section 18(1) if the required consultation on the regional land transport plan is carried out in consultation with the Auckland Council's consultation on its long-term plan.	Auckland Transport meets its legal obligations to consult the public by being part of Auckland Council's consultation on the Long-term Plan.
18C Reasons for not including activities in Auckland's regional land transport plan	
If Auckland Transport decides not to include in its regional land transport plan an activity proposed by the Auckland Council or the Agency, Auckland Transport must, when forwarding its plan to the Agency, give the Auckland Council or the Agency (as the case may require) written advice of the decision and the reasons for the decision.	This provision does not apply as all activities proposed by Auckland Council and the Transport Agency are included.