Integrated Transport Framework

Programme Business Case

Prepared for New Plymouth District Council

Prepared by Beca Limited

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Contents

Appendices

Revision History

Revision Nº	Prepared By	Description	Date
0.1	Anne Jacobsen and Michael Town	Strategic case draft for client review	17/03/2023
0.2	Megan Taylor, Michael Town, and Michael Sewell	Programme business case draft for client review	31/08/2023
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1.0	Michael Town and Michael Sewell	Final programme business case	23/01/2024
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Document Acceptance

Action	Name	Signed	Date
Prepared by	Michael Sewell		18/10/2024
Reviewed by	Michael Town		01/11/2024
Approved by	David Silvester		04/11/2024
on behalf of	Beca Limited		

Executive Summary

PART A – STRATEGIC CASE

1 Introduction

New Plymouth District Council (NPDC) require an Integrated Transport Framework (ITF) to shape and implement transport system improvements in the New Plymouth district that deliver improved social, economic and environmental outcomes over the next 30 years. Beca Ltd (Beca) is supporting NPDC in the development of this framework, which forms a Programme Business Case (PBC). This document begins by setting out the Strategic Case for the PBC and defines the problems, benefits and investment objectives that will inform the next stages of the PBC. The next stages are described in Part B: Developing the programme (economic case) and Part C: Preferred programme (management, financial and commercial cases).

This document has been substantively prepared under the Government Policy Statement on Land Transport 2021-2024 (GPS 2021). With the change in Government in late 2023, a new GPS on Land Transport covering 2024-2034 (GPS 2024) has been prepared. While some of the priorities are similar, such as road safety, resilience, and economic growth, there has been a change in emphasis towards maintenance, value for money and increased productivity. The Government's expected outcomes are now:

- Economic growth and increased productivity,
- Increased maintenance and resilience,
- Improved safety; and,
- Value for money.

These changes include shifting from a focus on reducing vehicle-kilometres travelled and emissions to making journey times more efficient, increasing public transport patronage, improving access to markets and employment areas, improving housing supply, and making better use of existing capacity. This, along with other Government policies, are still expected to reduce emissions over time while supporting economic growth and productivity.

As a result, the PBC has been updated to reflect the changes in the GPS 2024, and feedback on the affordability of the programme to fit in with the NPDC's Long Term Plan and 30-year Infrastructure Strategy.

1.1 Purpose

The purpose of the Strategic Case is to demonstrate the case for change and establish a comprehensive and integrated transportation system for the New Plymouth district over the next 30 years with an agreed programme of work that delivers on the objectives of the regional partners.

The Strategic Case outlines the problems and benefits to improving New Plymouth's transportation system and investigates the existing evidence that supports the problems. Further, the document establishes investment objectives and key performance indicators to guide programme development and evaluate success of the investment over time.

This document has been prepared in accordance with the principles outlined in the New Zealand Transport Agency Waka Kotahi (NZTA) Business Case guidelines and is supported by transport modelling outputs where appropriate.

1.1.1 Context for the Strategic Case

New Plymouth is a growing district and there is a need to support population growth with the appropriate infrastructure that also delivers sustainable outcomes. The NPDC Infrastructure Strategy 2021-2051[1] has four objectives:

- Taking care of what we have.
- Resilience and responding to climate change.
- Planning for growth.
- Meeting the needs of our community and reducing our impact on the environment.

These objectives are relevant to the investigations which are a part of this Strategic Case as it will confirm the transport investments needed to support the New Plymouth community to achieve their goals. The evidence-based decision making will aim to maximise the value of key assets for customers as this Strategic Case will outline a sound rationale for investments into the district's transport assets. Additionally, New Plymouth's Proposed District Plan has made it a priority to plan for growth as outlined in Urban Form and Development (UFD) as a part of the district's strategic direction. The strategic objectives of the UFD focus on providing feasible development capacity for 10,919 dwellings as well as confirming the district has vibrant and viable centres accommodating leisure, cultural, entertainment and social interaction experiences. This residential growth will result in a corresponding growth in employment in the district and a need to understand where this growth will occur so that there are strong transport connections. There is also a focus on liveable urban environments, connected, accessible, safe, and well-designed spaces for the community to live, work and play.[2]

These planning and corresponding infrastructure actions support a shift towards planning and building low-emission urban areas; characterised by more mixed use, and selected medium and high-density developments, with good access to jobs, amenities and services, that are well connected by a range of transport modes.

The UFD emphasises the importance of responding to climate change. This becomes especially evident as New Plymouth, like many other cities, has challenges with high mode share for fossil fuelled private vehicles among their population which releases emissions contributing to climate change and other impacts such as air quality, poor personal health and safety outcomes. New Plymouth's geographical location, being close to the coast and north of Mount Taranaki, means parts of the district are at-risk to rising sea-levels and high rainfall, which could cause devastation to the city's infrastructure and communities. For this reason, New Plymouth's commitment to meeting the needs of the community and environment is key in achieving a thriving city.

The Long-Term Plan 2021-2031 developed by NPDC sets out a plan to achieve the vision of New Plymouth being a Sustainable Lifestyle Capital as well as addressing the challenges the district is facing. The key goals are Ngāmotu tū ngātahi (*Community*), Oranga taiao, oranga tangata (*Sustainability*) and Te pai me te rawa o Ngāmotu (*Prosperity*). The goal around *Community* outlines the council's commitment to helping the community achieve wellbeing by building a safe, creative, active, and connected community which embraces Te Ao Māori. The plan also includes funding of trails and walkway extensions that will better connect communities. For *Sustainability*, the council seeks to nurture and mitigate the impacts on the environment while also adapting to climate change. This includes a programme of planting in parks as well as moving towards a low emission vehicle fleet. The goal around *Prosperity* talks to the council's desire to grow a

[1] https://www.npdc.govt.nz/media/vkfmpi3z/infrastructure-strategy-2021-2051.pdf

[2] https://districtplan.npdc.govt.nz/eplan/rules/0/180/0/0/0/126

resilient, equitable and sustainable economy. This will promote a district where people want to work, live, learn, play, and invest.[3]

As the Infrastructure Strategy 2021-2051 brings out the importance of partnership with Iwi this provides an opportunity of including Tangata Whenua into the Business Case process to best ensure the role Māori play in relation to decision making is present.

1.2 Project Area

The project area of this Strategic Case is the entire New Plymouth District as outlined in **Figure 1-1**. Note some different areas of the district may have different focuses, challenges and solutions related to the transport system.

[3] https://www.npdc.govt.nz/media/uqvnf5cq/appendix-1-long-term-plan-2021-2031.pdf

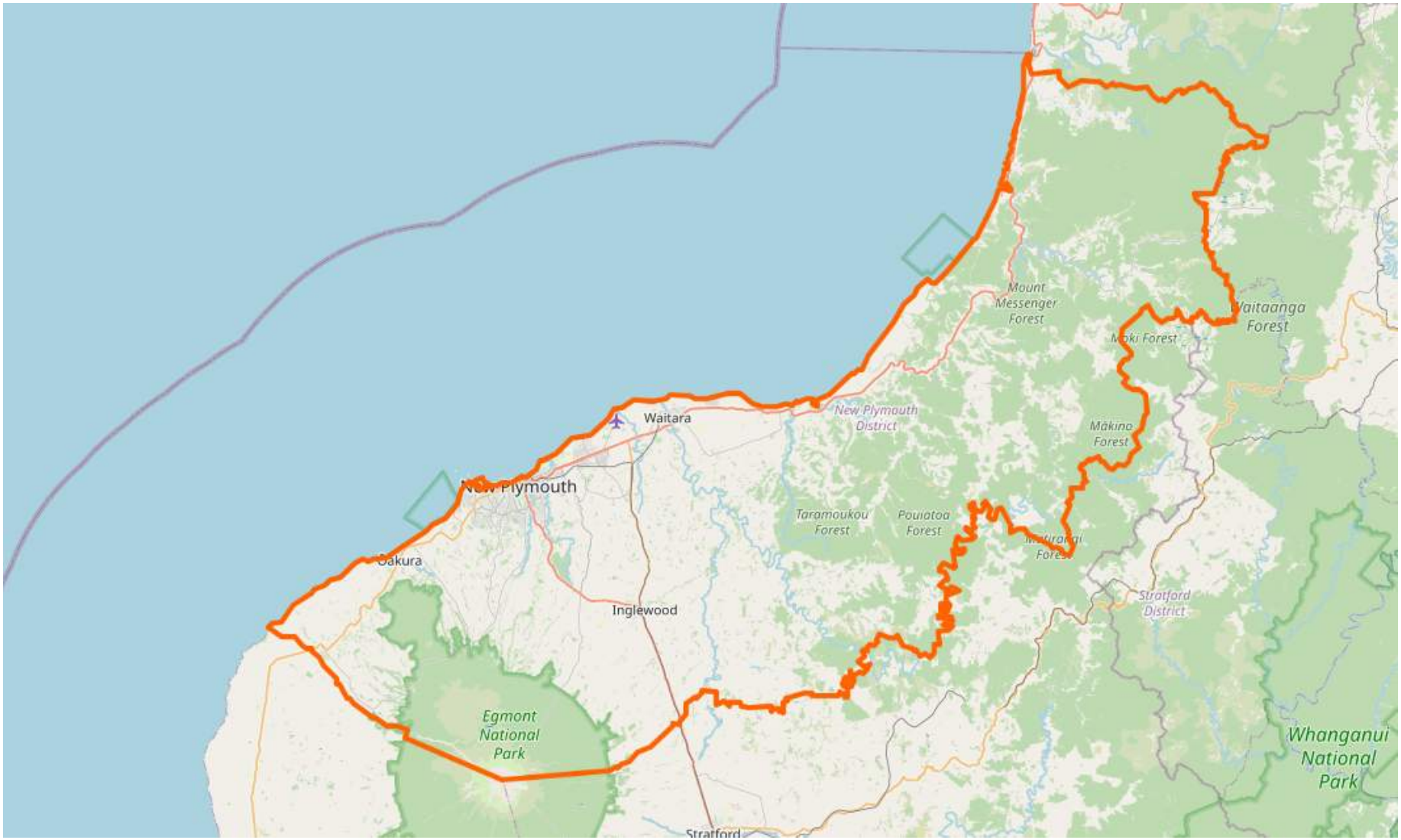


Figure 1-1: New Plymouth District Boundary

1.3 Previous Studies

The transport network in and around New Plymouth has been the subject of several studies in recent years. The most recent and relevant are summarised below.

1.3.1 Point of Entry 2021

The Point of Entry (POE) for NPDC to undertake an Integrated Transport Strategic (ITS) Plan was approved by NZTA in October 2021. The POE identified the scope of the ITS as:

> *The outcome for this project would be an agreed ITS plan to address the needs of growth and future transport network demand within the New Plymouth district. The strategic plan would apply new national tools (such as ONF), develop transport modelling capability, identify key strategic moves and interventions and develop an agreed programme of work.*
>
> *The transport modelling capability is necessary to support decisions on strategic infrastructure and service investment in NPDC's transport network over the next 30 years and assess the impacts of different significant intervention scenarios.*

On approval, funding was confirmed and the PBC was recommended as the next phase of work. The POE is provided in **Appendix A**.

1.3.2 New Plymouth Transport Strategic Case 2016

The 2016 Strategic Case demonstrated a strong case for investment to:

- support future growth,
- improve connectivity and reduce severance of the transport network; and,
- improve active mode links and their safety.

Although the Strategic Case 2016 was well received, a full PBC was not developed because of time constraints and the identified need for an ITF. The strategic direction of the Ministry of Transport Te Manatū Waka (MoT), the GPS on Land Transport, has since changed. Additionally, there was no involvement of local Iwi in the Strategic Case in 2016. Therefore, the Strategic Case is being updated to better align the New Plymouth District's transport future with the new GPS on Land Transport, integrate local Iwi perspectives, and provide opportunity for all project partners to contribute.

1.3.3 Walking and Cycling Strategy 2007

The 'Regional Walkways and Cycleways Strategy for Taranaki' provides a framework for developing and implementing a range of walking and cycling initiatives across the region[4]. The long-term vision of the strategy was "To provide greater transport choice and opportunities for people to discover and enjoy Taranaki's unique environment through walking and cycling."

The strategy is considered outdated as it was published in 2007. However, the Walking and Cycling Strategy will be updated through the Better Travel Choices Strategy (BTCS) work undertaken by the Taranaki Regional Council (TRC). The BTCS will replace the Regional Walkways and Cycleways Strategy and the Taranaki Regional Public Transport Plan. The primary objective of the BTCS will be to offer direction for the region's public transportation network and development schemes over the next decade.

[4] https://www.trc.govt.nz/assets/Documents/Plans-policies/Transport/walk-cycleways.pdf

1.3.4 Ngāmotu New Plymouth City Centre Strategy 2021

The Ngāmotu New Plymouth City Centre Strategy outlines the direction for the city centre over the next 30 years in response to changes in retail, business, and leisure. This strategy aims for the city centre to become a thriving cultural, leisure, and community hub with a diversity of experiences for residents and visitors to enjoy by 2050. This strategy also aims for walkable neighbourhoods with a greater mix of residential options. The presence of Ngāti Te Whiti and Te Atiawa is intended to be visible, acknowledging the past, present, and future. The vision of the strategy is supported by five goals, principles, and key moves to address challenges and opportunities and set a strong pathway for lasting change.[5]

1.3.5 Accessibility Strategy 2021

In 2021, NPDC completed their Accessibility Strategy[6] with the strategic vision that "NPDC Provides Equitable Services for All of Our Communities". NPDC aim to champion an inclusive society promoting social, economic, environmental, and cultural well-being of their communities. For this reason, their purpose is to reflect the accessibility of the district's built environments, communications, democratic process and provisions of services and events fundamental to all four of the above-mentioned well-being areas. The strategy has three goals:

1. Council services, facilities and assets are accessible to people with a wide range of abilities.
2. Council staff are aware of accessibility in the community and receive appropriate training.
3. Council are active champions of an inclusive society.

1.3.6 Network Operating Framework 2020

The New Plymouth Network Operating Framework (NOF) prepared in 2020 intended to integrate all transport modes with land use and link strategic directions to the planning and operation of the transport network. The framework identified both how the network should be managed, and performance gaps between the existing and future aspirational state of the transport network.

The NOF recommended several interventions to be implemented as part of the ITF. These include the following improvements:

- Elliot Street lane layouts and reconsideration of freight routes past the CBD.
- Changes to Devon Street East to align with the Strandon and Fitzroy Village environments.
- Relocation of the City Centre bus depot.
- Severance improvements in the CBD.
- Resilience of the Waiwhakaiho river crossing.
- Safety issues along Devon Street West.

1.3.7 Speed Management Plan 2022

In 2022 NPDC submitted their Interim Speed Management Plan to NZTA. This plan included speed limit reductions staged over three NLTP periods (9 years), as well as infrastructure improvements to support the proposed speed limits.

[5] https://www.npdc.govt.nz/planning-our-future/ngamotu-new-plymouth-city-centre-strategy/

[6] https://www.npdc.govt.nz/media/opajo5sx/accessibility-strategy.pdf

2 Strategic Context

2.1 Partner Overview

2.1.1 New Plymouth District Council

NPDC are responsible for maintaining, operating and improving the District's local roads and wider transport network to serve the needs of the local community. The Council operates in accordance with the Local Government Act 2002 and collaborates with the community to address the current and future demands for high-quality local infrastructure, public services, and regulatory functions.

2.1.2 Tangata Whenua

There are nine Iwi present in the Taranaki region: Te Atiawa, Taranaki, Ngāti Mutunga, Ngāti Tama, Ngāti Maru, Ngāti Ruanui, Ngāruahine, Ngaa Rauru Kiitahi, and Ngāti Maniapoto.

Of these Iwi, the rohe (tribal area) of Te Atiawa, Taranaki, Ngāti Mara, Ngāti Tama and Ngāti Mutunga overlap all or part of the project area (see **Figure 1-1**). The PBC team will liaise with the TRC Iwi Communications Officer and NPDC Communication and Engagement team to determine the best communications and engagement approach with these Iwi and their respective hapū.

Additionally, NPDC and Iwi/hapū established the Ngā Kaitiaki forum in 2016. Made up of representatives from Iwi and hapū, the initial purpose of the working group was to review the draft District Plan from a Te Ao Māori perspective[7]. The Ngā Kaitiaki forum continue to consider and advise on high level strategic issues in relation to the District Plan and district planning in general, including this ITF.

2.1.3 Taranaki Regional Council (TRC)

TRC are responsible for service planning, provision, and improvement across the region – through the Regional Public Transport Plan (RPTP) and Public Transport Operating Model (PTOM) bus contracts. Additionally, under the Sustainable Public Transport Framework (SPTF), NPDC and TRC will have a legal responsibility to collaborate on production of the RPTP. TRC are also responsible for producing the Taranaki Regional Land Transport Plan (RLTP). The Regional Councils overarching mission is "To work for a thriving and prosperous Taranaki" through:

- promoting the sustainable use, development and protection of our natural and physical resources
- safeguarding Taranaki's people and resources from natural and other hazards
- promoting and providing for significant services, amenities and infrastructure; and,
- representing Taranaki's interests and contributions regionally, nationally and internationally.

2.1.4 New Zealand Transport Agency NZTA (NZTA)

The purpose of NZTA is to enable "Moving, Together." where 'Moving' encompasses the essential nature of transport while also conveying the forward momentum of the future, and 'Together' refers to the effect of collaboration, communities, the greater good, and shared services.[8] Their vision is "a land transport system connecting people, products and places for a thriving Aotearoa". The system outcomes NZTA focus on to realise their vision are as follows:

- **Safe:** ensuring no one is killed or seriously injured when using or working on the transport system.

[7] https://www.npdc.govt.nz/media/wluptatw/working-with-tangata-whenua.pdf

[8] https://www.nzta.govt.nz/assets/resources/statement-of-intent/2021-2026/soi-2021-2026.pdf

- **Environmentally sustainable:** reducing harm to and improving the environment with a focus on reducing greenhouse gas emissions.
- **Effectively and efficiently moving people and freight:** ensuring networks are available and reliable at consistent levels of service with a focus on increasing the uptake of efficient, cost effective, low carbon transport options.
- **Meeting current and future needs:** ensuring we have access to the people, funding and systems we need.

NZTA has also developed Arataki[9], a shared sector view of long-term planning, development, and investment in the land transport system. Arataki outlines a plan to steer collaborative efforts over the next 30 years towards implementing a land transport system that can effectively sustain the movement of Aotearoa New Zealand. For the Taranaki region, the document identifies walking and cycling as being effective in reducing vehicle kilometres travelled (VKT) in the region, while shifting more freight to rail and coastal shipping to help cut emissions. Safety, resilience, and supporting the transition to a low-carbon economy are highlighted as the other crucial transport challenges for Taranaki in the next 30 years.

NZTA also has a focus on maintaining, operating, and improving the state highway network, while working with investment partners to apply an intervention hierarchy to optimise existing and proposed new investments in the land transport system. The intervention hierarchy underpins programme development and evaluation this PBC to deliver value for money in the recommended programme. The intervention hierarchy is shown in **Figure 2-1**.

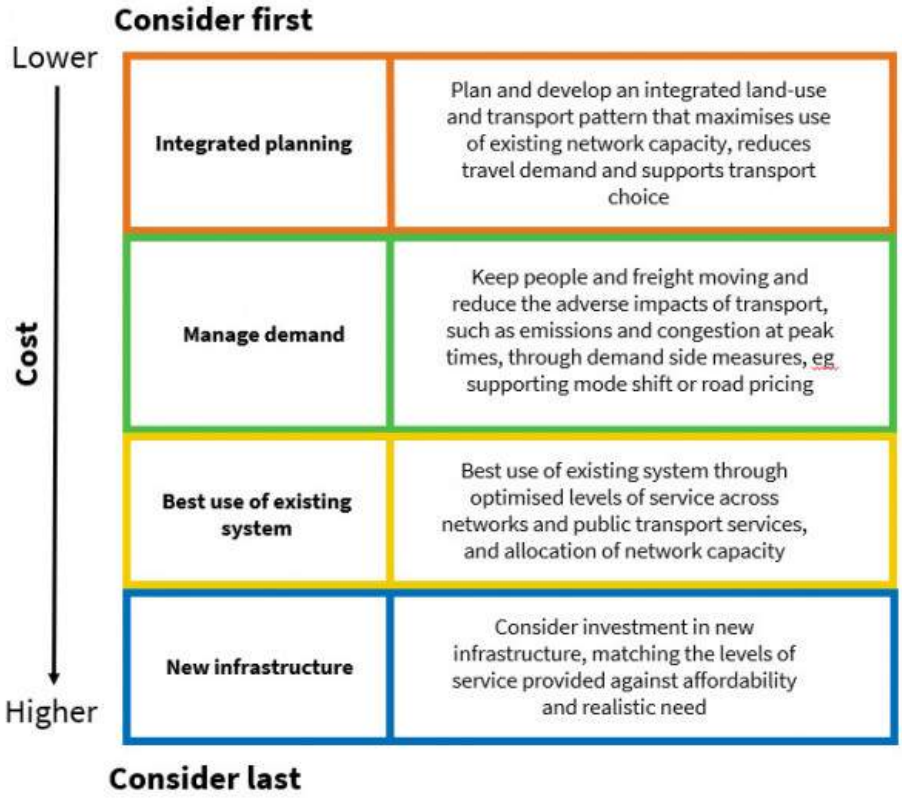


Figure 2-1: NZTA Intervention hierarchy[10]

[9] https://www.nzta.govt.nz/planning-and-investment/planning/arataki

[10] https://www.nzta.govt.nz/planning-and-investment/funding-and-investing/optioneering/resources/intervention-hierarchy/

2.2 Alignment to Existing Partner Strategies and Objectives Summary

Table 2-1 provides an overview of the alignment of the existing strategies and objectives of the partners across several consistent themes. The objectives are discussed on a national and regional level in **Section 2.3** and **2.4**.

The identified strategies and objectives align well with the themes of the GPS 2024. However, there are minor gaps at the regional level.

Table 2-1: Alignment of strategies and objectives across regional and national partners

Strategic Themes	MoT / NZTA	NPDC	TRC	Tangata Whenua
Better Travel Options	GPS 2024 – Economic Growth and Productivity ERP Target 1 Arataki – Environmental Sustainability and Inclusive Access	Proposed District Plan – Objective TRAN 01 Infrastructure Strategy – Planning for Growth	RLTP – Accessible Better Travel Choices	
Climate Change	ERP – Target 2 Arataki – Resilience and Security	Proposed District Plan – Objective TRAN 01 Infrastructure Strategy – Resilience and Responding to Climate Change (Climate Resilience)	RLTP – Resilient and responsive (Climate Resilience) RLTP – Environmentally sustainable Better Travel Choices	TTAR2.1
Economic prosperity	GPS 2024 – Economic Growth and Productivity ERP – Target 3 Arataki – Economic Prosperity	Proposed District Plan – Objective TRAN 01, 02, 03 Infrastructure Strategy – Planning for Growth	RLTP - Enabling	
Safety and Health	GPS 2024 – Safety Arataki – Healthy and Safe People	Proposed District Plan – Objective TRAN 02 Infrastructure Strategy – Meeting the needs of our community	RLTP – Safe and Health People	TTAR1.1

There is a noted gap in the business case for maintenance activities. Maintenance activities for the region will be covered in the NPDC Transportation Asset Management. This outlines the key priorities for maintenance across the region and how to council will deliver services required for the New Plymouth district's transport network users to go about everyday business and life.

2.3 Alignment to Existing Partner Strategies and Objectives – National

2.3.1 MoT and NZTA

Government Policy Statement on Land Transport 2021 and 2024

The GPS on Land Transport sets out the Government's priorities for the investment in land transport over the coming 10-year period and is updated every three years. The strategic priorities of the GPS 2021[11] and GPS 2024[12] are given in **Table 2-2**.

Table 2-2: Strategic Priorities of GPS 2021 and GPS 2024

GPS 2021	GPS 2024
Safety	Safety
Improving Freight Connections	Economic Growth and Productivity
Climate Change	Value for Money
Better Travel Options	Increased Maintenance and Resilience

The GPS 2021 and GPS 2024 priorities have similar strategic themes related to safety, improved freight networks, and economic productivity. However, the GPS 2024 includes maintenance and value for money, which are new strategic themes.

National Emissions Reduction Plan (ERP) 2022

The National Emission Reduction Plan (ERP) 2022 outlines the Government's first iteration of strategy for transitioning to net zero emissions by 2050 as part of the Paris Agreement. The ERP provides a framework to develop and implement clear and stable climate change policies that help limit the global average temperature increase to 1.5 degrees Celsius above pre-industrial levels and enable adaptation to the effects of climate change[13]. The Transport chapter of the ERP identifies four focus areas to support the targets of the plan:

- **Target 1:** Reduce total kilometres travelled by the light fleet by 20 per cent by 2035 through improved urban form and better travel options, particularly in our largest cities.
- **Target 2:** Increase zero-emissions vehicles to 30 per cent of the light fleet by 2035.
- **Target 3:** Reduce emissions from freight transport by 35 per cent by 2035.
- **Target 4:** Reduce the emissions intensity of transport fuel by 10 per cent by 2035.

The key transport actions in the ERP are to:

- Reduce reliance on cars and support people to walk, cycle and use public transport,
- Rapidly adopt low-emissions vehicles; and,
- Begin work now to decarbonise heavy transport and freight.

Further details on the ERP have been provided by MoT on the sub-national VKT targets for Tier 1 and 2 urban areas, in New Zealand, for the light vehicle fleet. Collectively these targets, combined with reductions expected from the rest of New Zealand, need to align with the national target to reduce total VKT by 20 percent by 2035. The purpose of the sub-national targets is to help central and local government better understand and plan for the contribution major urban areas need to make to achieving the national VKT

[11] https://www.transport.govt.nz/assets/Uploads/Paper/GPS2021.pdf

[12] https://www.transport.govt.nz/assets/Uploads/Government-Policy-Statement-on-land-transport-2024-FINAL.pdf

[13] https://environment.govt.nz/assets/publications/Aotearoa-New-Zealands-first-emissions-reduction-plan.pdf

reduction target. The specific targets set by MoT for each urban area are "*realistic, appropriate to the area, and sufficiently ambitious. The proposed targets are informed by how much impact different interventions (such as land use change, public transport, and pricing measures) can have on VKT in different areas, based on the available international evidence. Much less change will be required of rural areas than highly urbanised ones*." The specific target set for the district are shown in **Table 2-3**.

Table 2-3: Estimated sub-national VKT baselines, proposed target % changes and VKT target value for the district

Tier	Territorial Local Authority	2035 Baseline % change against 2019 Benchmark	2035 Target % change against 2019 Benchmark	2035 Target % change against 2035 Baseline
2	New Plymouth District Council	19%	5%	-12%

As shown in **Table 2-3**, the ERP 2022 target for the New Plymouth district was a 12% reduction in VKT by 2035. However, as per the most recent iteration of the Waka Kotahi Arataki 30-year sector plan, the target of 12% reduction has been removed for the New Plymouth District. Arataki now simply targets a decrease in VKT relative to a 2035 baseline. See **Section 1** for more discussion on VKT in relation to the GPS 2024.

Arataki 30 Year Plan September 2023

Arataki has been developed *as a shared sector view of how we need to plan, develop, and invest in the land transport system during the next 30 years. This version of Arataki provides a strong foundation for us to have ongoing conversations with our partners and others to co-create the plan. Arataki provides direction that will guide how we'll work together during the next 30 years to deliver the future land transport system needed to keep Aotearoa New Zealand moving.*

The September 2023 version of Arataki includes direction for the Taranaki region that is relevant for the New Plymouth District. The key challenges over the next 30 years and the key actions in the next 10 years are summarised in **Table 2-4**. These challenges and actions align well with the GPS 2024.

Table 2-4: Arataki Regional Summary for Taranaki

Outcome	Challenges and Opportunities	10-year Key Actions
Environmental Sustainability	A significant change in the way people travel is required to meet 2035 emissions reduction targets for both private vehicles and freight. Care is needed so this does not unfairly impact specific groups or communities.	• Land use changes • Determine what interventions (small and large) are needed to reduce emissions. • Reallocate road space for low emissions modes. • Manage parking to support the use of low emission modes. • Improve PT services and explore technological solutions. • Put the right policies in place
Healthy and Safe People	Safety should be improved on high-risk roads to lower the number of deaths and serious injuries. Walking and cycling facilities should be improved to promote healthy travel options.	• Targeted road safety improvements (physical interventions and speed management) • Rapid roll out of cycle infrastructure • Require high quality active mode facilities in new developments. • Focus on policy and behaviour change programmes that

Outcome	Challenges and Opportunities	10-year Key Actions
		encourage walking, cycling and safe vehicle use. • Improve rural mobile network coverage
Inclusive Access	Communities are heavily reliant on private vehicles, limiting travel choice and placing pressure on household budgets.	• Planning rules that focus on creating development in well-connected locations. • Improve PT and active mode accessibility and affordability. • Consider the needs of all communities and people within the transport system.
Economic Prosperity	A transition to a low carbon economy will mean a significant change to the region's economy and the way people travel. Expanded forestry will increase freight movements, and the geographic constraints around New Plymouth restrict the transport network.	• Improve access to social and economic opportunities. • Support a resilient and reliable freight network
Resilience and Security	There is an increased risk of damage from storms and sea level rise, and Taranaki is close to both the sea and mountains. Changes from national events (e.g. COVID 19) disrupts the transport system.	• Prioritise responses to natural hazards in high-risk areas and avoid new developments in those areas. • Improve the resilience of critical transport connections. • Improve operational responses to disruptive events

2.4 Alignment to Existing Partner Strategies and Objectives – Regional

2.4.1 New Plymouth District Council (NPDC)

The Proposed District Plan for NPDC has identified the following objectives for transport:

- **TRAN-01:** The transport network is a well-connected, integrated, and accessible system that:
  - Meets and is responsive to current and future needs, including projected population growth,
  - Maximises opportunities to link with land uses; and,
  - Promotes the use of public transport, walking and cycling, and reduces dependency on private motor vehicles.
- **TRAN-02:** The transport network is safe, efficient, and effective in moving people and goods within and beyond the district.
- **TRAN-03:** Activities generate a type or level of traffic that is compatible with the local road transport network they obtain access to and from.
- **TRAN-04:** The existing and future transport network is not compromised by incompatible activities which may result in reverse sensitivity effects and/or conflict.

- **TRAN-05:** Adverse effects from the construction, maintenance and development of the transport network are managed.[14]

The objectives for Transport in the Proposed District Plan align well with GPS 2024 on economic growth and productivity, increased maintenance and resilience, and safety.

The NPDC Infrastructure Strategy has been developed to assist with sound decision on future investments in infrastructure assets. Key drivers have been identified to guide investment, those of which are specific to infrastructure for the transport network are listed below:

- Taking care of what we have.
- Resilience and responding to climate change:
  - Infrastructure resilience (e.g., additional transport connections on key routes).
- Planning for growth:
  - Improve travel times and options to support growth.
- Meeting the needs of our community and reducing our impact on the environment:
  - Safety improvements and speed limit review.

In terms of transportation, the community expectation, according to the Infrastructure Plan[15], is defined as *"a safe, reliable roading network with minimal interruptions and adequate parking with an appropriate quality is provided at an affordable cost that minimises harm to the environment"*.

Many of the key drivers in the Infrastructure Plan align well with the themes of the GPS 2024 (e.g. resilience and planning for growth), with some additional community expectations from a New Plymouth perspective that focus on existing transport operations, private vehicle use, climate change and car parking.

The Long-Term Plan (LTP) outlines NPDC's strategic framework and key challenges for the New Plymouth District. The overarching vision for the New Plymouth District is to be the *"Sustainable Lifestyle Capital"*. The mission supporting the vision is: *"To provide our people with an innovative and resilient district that restores mauri, protects our environment and supports a successful economic transition, while providing quality infrastructure and leadership through operational excellence"*. The transport chapter of the plan defines objectives with a focus on providing a safe transport network for all road users, high quality and maintenance of district roads, and a high quality and safe cycle and footpath network.[16]

NPDC have also prepared a District-wide Emissions Reduction Plan (2023)[17]. This recognises that NPDC should continue to encourage a compact urban form that enables active travel choices, and most respondents to the draft plan supported further emissions reduction action. It supports the need to deliver low emissions options, and outlines that this document (Integrated Transport Framework) is the vision to guide investment to achieve this outcome.

The objectives of the District Plan and LTP align with the themes of safety, economic growth and increased maintenance and resilience from the GPS 2024.

2.4.2 Tangata Whenua – Iwi management plans

In 2019, Te Atiawa presented their iwi environmental management plan: *Tai Whenua, Tai Tangata, Tai Ao*. The plan sets out the views and expectations of Te Atiawa for environmental resource management within

[14] https://districtplan.npdc.govt.nz/eplan/rules/0/21/0/0/0/126

[15] https://www.npdc.govt.nz/media/02xdbchm/4-infrastructure-strategy.pdf

[16] https://www.npdc.govt.nz/media/uqvnf5cq/appendix-1-long-term-plan-2021-2031.pdf

[17] https://www.npdc.govt.nz/media/2a3fdw35/district-wide-emissions-reduction-plan-2023-adopted-12-september-2023.pdf

their rohe (which is included in the project area). It provides a basis for engagement with Te Atiawa and its hapū on a broad range of environmental and resource management issues[18]. The plan identifies issues, objectives, and policies across eight domains. The following domains and their objectives from the plan can be considered as directly relevant to transport:

- **Te Tai Awhi-Rangi (TTAR) – Air and Atmosphere**
  - **TTAR1.1** Ensure that air and atmosphere quality is of a high standard for current and future generations.
  - **TTAR2.1** Promote initiatives to reduce greenhouse gas emissions within our Te Atiawa rohe.
  - **TTAR3.1** Ensure the effects of light, noise, odour, radiation, and visual pollution are managed in a manner that does not impact on Te Atiawa, the environment, species, on our health and wellbeing, or cause a nuisance to our people.
- **Te Tai Hekenui (TTHE) – Heritage**
  - **TTHE1.1** Acknowledge and protect geographical areas with a concentration of interconnected wahi tapu/wahi taonga, urupā and sites of significance to Māori.
  - **TTHE2.1** Ensure that wāhi tapu/wāhi taonga, urupā and sites of significance to Māori within our Te Atiawa rohe are protected from damage, modification, desecration, destruction, and loss of access.
  - **TTHE3.1** Support General Objectives which provide for Te Tai Hekenui.
  - **TTHE3.2** Require access to be provided to Te Atiawa wāhi tapu/wahi taonga, urupā and sites of significance.

The plan does not include explicit policy direction regarding transport choices.

2.4.3 Taranaki Regional Council (TRC)

2021 RLTP

The 2021 RLTP[19] for Taranaki has a vision of *"a vibrant, resilient and connected region, with a safe transport system enhancing liveable places"* and defines the following objectives to achieve this vision:

1. **Integrated:** An integrated and collaborative approach to transport and land use planning that maximizes transport effectiveness.
2. **Enabling:** An effective, efficient, and resilient land transport system that enhances economic wellbeing, growth and productivity in the Taranaki region and beyond.
3. **Safe and healthy people:** Protecting people from transport related deaths and serious injuries and making active travel an attractive option.
4. **Accessible:** A people focused, multimodal land transport system that caters for the different and changing needs of transport users, connects communities and enables participation.
5. **Resilient and responsive:** A land transport system that is robust, responsive to changing needs and resilient to external influences, including climate change.
6. **Environmentally sustainable:** An energy efficient and environmentally sustainable land transport system.

An Investment Logic Mapping (ILM) workshop was completed in late 2022 for the next RLTP to outline the strategic direction. The problems and benefits arising from this ILM are shown in **Figure 2-2.**

The RLTP problems and benefits are consistent with the GPS 2024 themes of efficient journey times, safety, and increased productivity.

[18] https://teatiawa.iwi.nz/tai-whenua-tai-tangata-tai-ao/

[19] https://www.trc.govt.nz/council/plans-and-reports/strategy-policy-and-plans/transport-planning-documents/

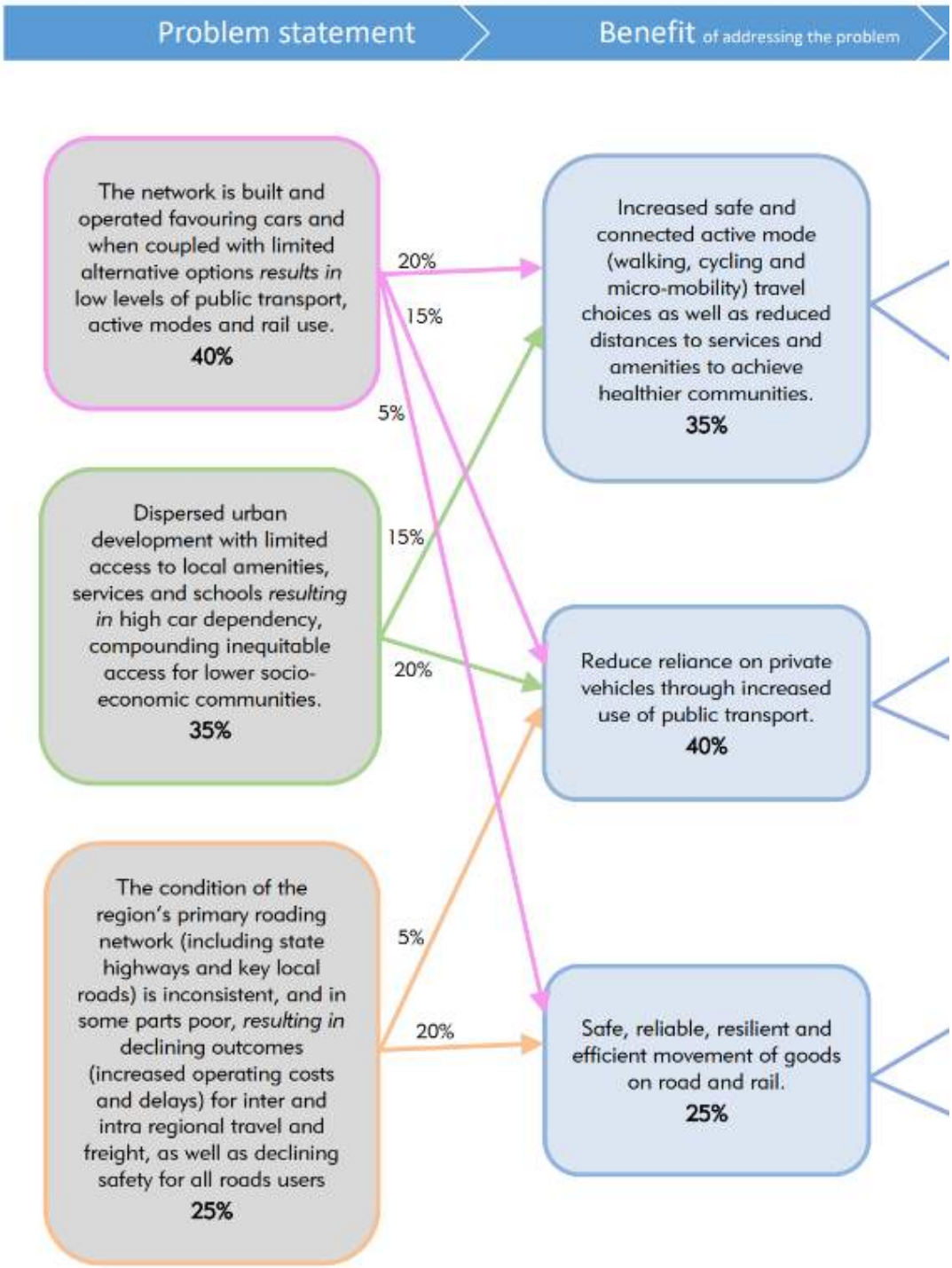


Figure 2-2: Taranaki Regional Council Regional Land Transport Plan Investment Logic Mapping diagram

Better Travel Choices Strategy

TRC undertook the Better Travel Choices Strategy (BTCS) community consultation in March 2023[20]. The aim of this consultation was to gather information for developing BTCS policy, inform the development of Speed Management Plans by NPDC, Stratford District Council and South Taranaki District Council, and seek feedback on bus routes across the region. 1,805 respondents provided feedback on the following four focus areas:

- Road safety and speed management.
- Long-term vision for transport in Taranaki.
- Public transport (including buses and rail).
- Cycling, walking and active travel.

This feedback has been incorporated within the PBC, particularly in the evidence base of problem statement 1.

From September-October 2023, public consultation was undertaken on the draft TRC Active Travel Strategy and Regional Public Transport Strategy. These strategies aim to achieve the following:

- Support an active (walking, cycling and other active travel) and public transport system that provides safe, healthy and environmentally sustainable options for a range of journeys.
- Deliver a bus network that you can rely on, and which gives additional choice for more people, for a wider range of journeys and
- Provide a public transport system that is well-integrated with other modes of transport.

2.5 Identifying Key Stakeholders

The key partners for the project were identified at the start of the project by NPDC as Tangata Whenua, NZTA, and the Taranaki Regional Council. The communications and engagement team at NPDC identified the key stakeholders and these are provided in **Appendix B**.

The development of the Strategic Case and Programme Business Case has included ongoing consultation with both the project partners and stakeholders. The project partners have attended and provided valuable insight through a series of workshops from identifying interventions all the way through to confirming the preferred programme. In addition to these workshops, fortnightly project updates were held with the stakeholders to discuss programming, background information required from the group and to discuss the next steps.

[20] https://www.trc.govt.nz/buses-transport/transport-planning/the-road-ahead-developing-a-new-road-land-transport-plan/previous-community-feedback/

3 Strategic Assessment – outlining the need for investment

3.1 Defining the Problems

On October 22nd 2022, an ILM workshop confirmed the case for change and key issues in the New Plymouth District. This work was finalised on 19th June 2023. Decision makers and governance leaders from partner organisations and key stakeholders, as well as staff from TRC, NZTA, and NPDC attended the workshop. The initial workshop produced four draft problem statements that encompass the key issues in the New Plymouth District. **Appendix C** contains the available notes from this workshop and the feedback from partners to finalise the problem statements. The final problem statements have since undergone minor refinements in the development of this ITF and are shown in **Table 3-1**.

Table 3-1: Final problems statements for the ITF

	Problem	Weighting
1	Public transport is not competitive with private vehicle travel or convenient to access by active modes resulting in low public transport use and poor customer experience.	35%
2	Most urban areas have low density residential developments that make access by public transport, walking and cycling difficult resulting in high dependency on private vehicles and increasing transport costs for the community that especially impact lower socio-economic groups.	30%
3	The network is configured to prioritise private vehicles and road freight over other modes resulting in issues across the city and towns including severance (particularly for centres on state highways, between communities and the coast, and residential areas with key destinations), and declining amenity (noise, dust, and pollution).	20%
4	The current active mode transport networks (walking, cycling, and micro-mobility) are fragmented and have unsafe connections resulting in safety issues, poor perception of the network and low active mode uptake.	15%

These problem statements have clear alignment to the national and regional partner policies and objectives, as shown below in **Figure 3-1**.

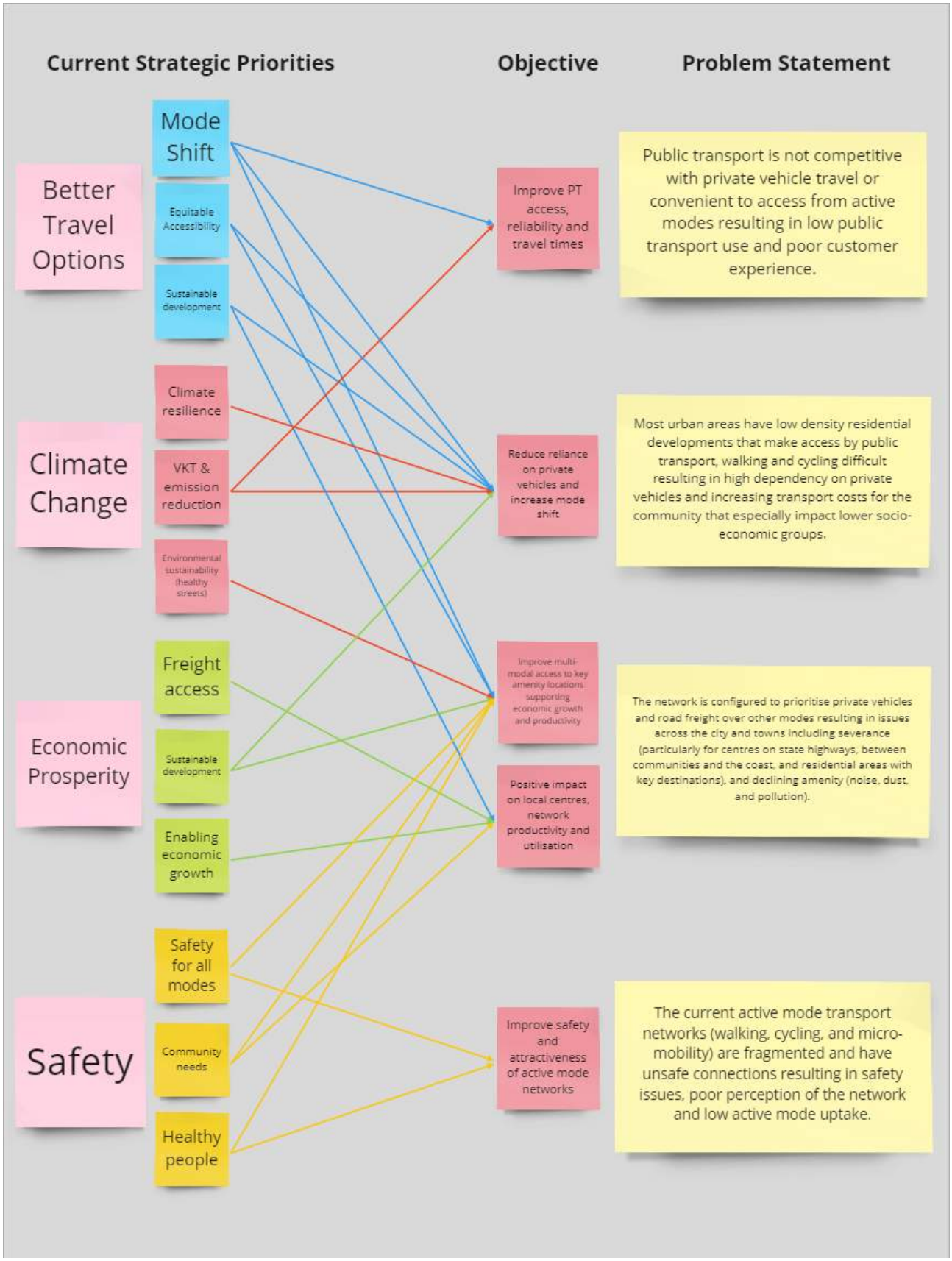


Figure 3-1: Alignment between the Strategic Context and the Problem Statements

3.2 The Benefits of Investment and Key Performance Indicators

The potential benefits of investing to address the problems were also identified during the ILM workshop along with the Key Performance Indicators (KPIs). **Table 3-2** presents the refined KPIs and their alignment with the benefits.

Table 3-2: KPIs related to benefits and investment objectives

Benefit	Investment Objective	Investment KPIs
Public transport is accessible, convenient and the preferred mode of transport for many (30%).	Improve public transport network access, reliability, and travel times	**KPI 1:** Public transport travel times (average, variability). **KPI 2:** Public transport user surveys and annual satisfaction surveys. **KPI 3:** Percentage of population within 400 and 800 metre walking catchments of public transport. **KPI 4a:** Public transport mode share for journey to work and school trips. **KPI 4b:** Public transport mode share for journey to school trips.
Decreased reliance on cars as the primary mode of transport and increased walking, cycling and PT use (35%).	Reduce private vehicle reliance and transport related emissions and increase mode shift	**KPI 5:** CO2 transport related emissions. **KPI 6:** Journey to work by single occupancy vehicle and vehicle kilometres travelled. **KPI 7:** Proportions of public transport, walking and cycling for journey to work trips. **KPI 8:** Proportions of public transport, walking and cycling for journey to school trips.
Improved access to amenities (coast, schools, and services) and employment along engaging and enjoyable transport corridors (15%).	Positive impact on local centres, network productivity and utilisation Improved multi-modal access to key amenity locations and employment	**KPI 9:** Level of Service for pedestrians and cyclists on key routes (to schools, amenities, services, and employment). **KPI 10:** Comparative travel times between transport modes between key locations. **KPI 11:** Percentage of residents living within 400 and 800 metre walking catchments of local centres. **KPI 12:** Foot traffic in the CBD and town centres and average length of visit. **KPI 13:** Percentage of freight on appropriate arterial corridors and average freight travel times.
A safe and connected city and towns to walk and cycle with active and healthy communities (20%).	Improve the safety and attractiveness of active mode networks for all users (eg children, elderly, and people with disabilities)	**KPI 14:** Deaths and serious injuries for active mode users. **KPI 15:** Percentage of primary cycling network which is safe, separated and continuously connected. **KPI 16:** Pedestrian wait times and crossing delay in urban/town centres.

Table 3-3 summarises the potential benefits and the alignment to the Land Transport Benefits Framework.

Table 3-3: Benefits and Investment Objectives

Integrated Transport Framework				Land Transport Benefits Framework		
PBC Benefit	**PBC Investment Objective**	**Measures**	**2018 Baseline**	**Transport outcome**	**Benefit**	**Monetised benefits**
Public transport is accessible, convenient and the preferred mode of transport for many (30%).	Improve public transport network access, reliability, and travel times.	**KPI 1:** Public transport travel times (average, variability).	The travel times to New Plymouth from Bell Block is 43 min, Highlands Park is 28min, Hurdon is 27min and Spotswood is 26 min.	Inclusive access	Punctuality - public transport	Punctuality - public transport
		KPI 2: Public transport user surveys and annual satisfaction surveys.	- The current scheduling of bus services does not properly accommodate the needs of many potential users. - Infrequent services and routes that do not align with residents' desired destinations. - The convenience of travelling by private vehicle or active modes far surpasses that of public transport.	Inclusive access	Access - perception	
		KPI 3: Percentage of population within 400 and 800 metre walking catchments of public transport.	58.3% within 400m 74.6% within 800m	Inclusive access	Spatial coverage - public transport	
		KPI 4a: Public transport mode share for journey to work trips.	0.7% of journeys to work are made by public transport	Inclusive access	Spatial coverage - public transport, mode shift from single occupancy vehicles	
		KPI 4b: Public transport mode share	14% of journeys to school are made by public transport	Inclusive access	Spatial coverage - public transport,	

Integrated Transport Framework				Land Transport Benefits Framework		
PBC Benefit	**PBC Investment Objective**	**Measures**	**2018 Baseline**	**Transport outcome**	**Benefit**	**Monetised benefits**
		for journey to school trips.			mode shift from single occupancy vehicles	
Decreased reliance on cars as the primary mode of transport and increased walking, cycling and PT use (35%).	Reduce private vehicle reliance and transport related emissions and increase mode shift.	**KPI 5:** CO2 transport related emissions.	295 CO2-eq tonnes per day	Environmental sustainability	Greenhouse gas emissions (all vehicles)	Greenhouse gas emissions (all vehicles)
		KPI 6: Journey to work by single occupancy vehicle and vehicle kilometres travelled.	99.3% journey to work vehicle mode share (when considering PT and Vehicle modes only) 20.3 VKT per day	Environmental sustainability	Mode shift from single occupancy vehicles	
		KPI 7: Proportions of public transport, walking and cycling for journey to work trips.	0.7% journey to work PT mode share and 99.3% work vehicle mode share	Inclusive access	Mode shift from single occupancy vehicles	
		KPI 8: Proportions of public transport, walking and cycling for journey to school trips.	14% journey to school PT mode share	Inclusive access	Mode shift from single occupancy vehicles	
Improved access to amenities (coast, schools, and services) and	Positive impact on local centres, network productivity and utilisation. Improved multi-modal access to	**KPI 9:** Level of Service for pedestrians and cyclists on key routes (to schools, amenities, services, and employment).	Not yet available	Inclusive access	Network condition	Network condition

Integrated Transport Framework				Land Transport Benefits Framework		
PBC Benefit	**PBC Investment Objective**	**Measures**	**2018 Baseline**	**Transport outcome**	**Benefit**	**Monetised benefits**
employment along engaging and enjoyable transport corridors (15%).	key amenity locations and employment supporting economic growth and productivity.	**KPI 10:** Comparative travel times between transport modes between key locations.	The travel times difference between PT and vehicles from New Plymouth to: Bell Block is +27min, Highlands Park is +15min, Hurdon is +13min Spotswood is +14min.	Inclusive access	Travel time	Travel time
		KPI 11: Percentage of residents living within 400 and 800 metre walking catchments of local centres.	10.3% within 400m 34.4% within 800m	Inclusive access	Access to key social destinations (all modes)	
		KPI 12: Foot traffic in the CBD and town centres and average length of visit.	Not yet available	Inclusive access	Throughput of pedestrians, cyclists, and public transport boardings	
		KPI 13: Percentage of freight on appropriate arterial corridors and average freight travel times.	93.2% of freight is on appropriate arterial corridors Average freight travel time between Port Taranaki &: Bell Block 22 min Highlands Park 14 min Hurdon 5 min	Inclusive access	Spatial coverage - freight, travel time delay	
A safe and connected city and towns to	Improve the safety and attractiveness of active mode	**KPI 14:** Deaths and serious injuries for active mode users.	2.19 annual DSI for cyclists	Healthy and safe people	Deaths and serious injuries	Deaths and serious injuries

Integrated Transport Framework				Land Transport Benefits Framework		
PBC Benefit	**PBC Investment Objective**	**Measures**	**2018 Baseline**	**Transport outcome**	**Benefit**	**Monetised benefits**
walk and cycle with active and healthy communities (20%).	networks for all users (e.g. children, elderly, and people with disabilities).	**KPI 15:** Percentage of primary cycling network which is safe, separated and continuously connected.	6%	Healthy and safe people	Spatial coverage - cycle lanes and paths	
		KPI 16: Pedestrian wait times and crossing delay in urban/town centres	Not yet available	Inclusive access	Pedestrian delay	

4 Evidence base

4.1 Problem 1

Public transport is not competitive with private vehicle travel or convenient to access by active modes resulting in low public transport use and poor customer experience.

This issue relates to the low usage of public transport within the New Plymouth District and how it is not a viable or desirable transport option when considering travel time and accessibility. This problem is prevalent across the entirety of the New Plymouth District. Census data, travel times from outer suburbs of New Plymouth, and the TRC Future of Transport report have been used to investigate this problem statement.

4.1.1 Mode Split

Table 4-1 shows that private vehicles were the most common mode choice for travelling to work in the New Plymouth District over the last three Census periods. Furthermore, the proportion of people travelling to work by private vehicle has increased over this time. This indicates that private vehicles are viewed as the most convenient way to travel to work in New Plymouth.

Table 4-1: New Plymouth travel to work mode split from New Zealand Census

Travel Mode	2006	2013	2018
Private/Company Vehicle	70.5%	70.4%	76.7%
Public Transport	0.4%	0.5%	0.5%
Active Transport	7.8%	7.9%	6.1%
Other	21.3%	21.2%	16.7%

Table 4-2 shows significantly higher proportions of public transport and active mode users for travelling to education compared to work in the New Plymouth District. However, travelling by private vehicle remains the most prevalent mode of transport to education. It is noted that travel to education data has been collected through the Census only from 2018 onward.

Table 4-2: New Plymouth travel to education mode split from New Zealand Census

Travel Mode	2018
Private/Company Vehicle	55.0%
Public Transport	12.9%
Active Transport	22.7%
Other	9.4%

4.1.2 Public transport connectivity, scheduling, and travel times

The current New Plymouth urban bus network follows a hub and spoke model, with a single centralised bus hub in the CBD (see **Figure 4-1**). Although this makes employment and education opportunities towards the CBD relatively accessible, the network lacks direct connections east to west and between valley communities around the central city. Therefore, any movements across the city or between suburbs by bus require at least two separate bus services with a changeover in the CBD or at stops with intercepting routes. Orbiter bus services also make journey times long as they are indirect. Additionally, key destinations such as Port Taranaki and the hospital are not well serviced and require at least two bus services for most movements to key locations.

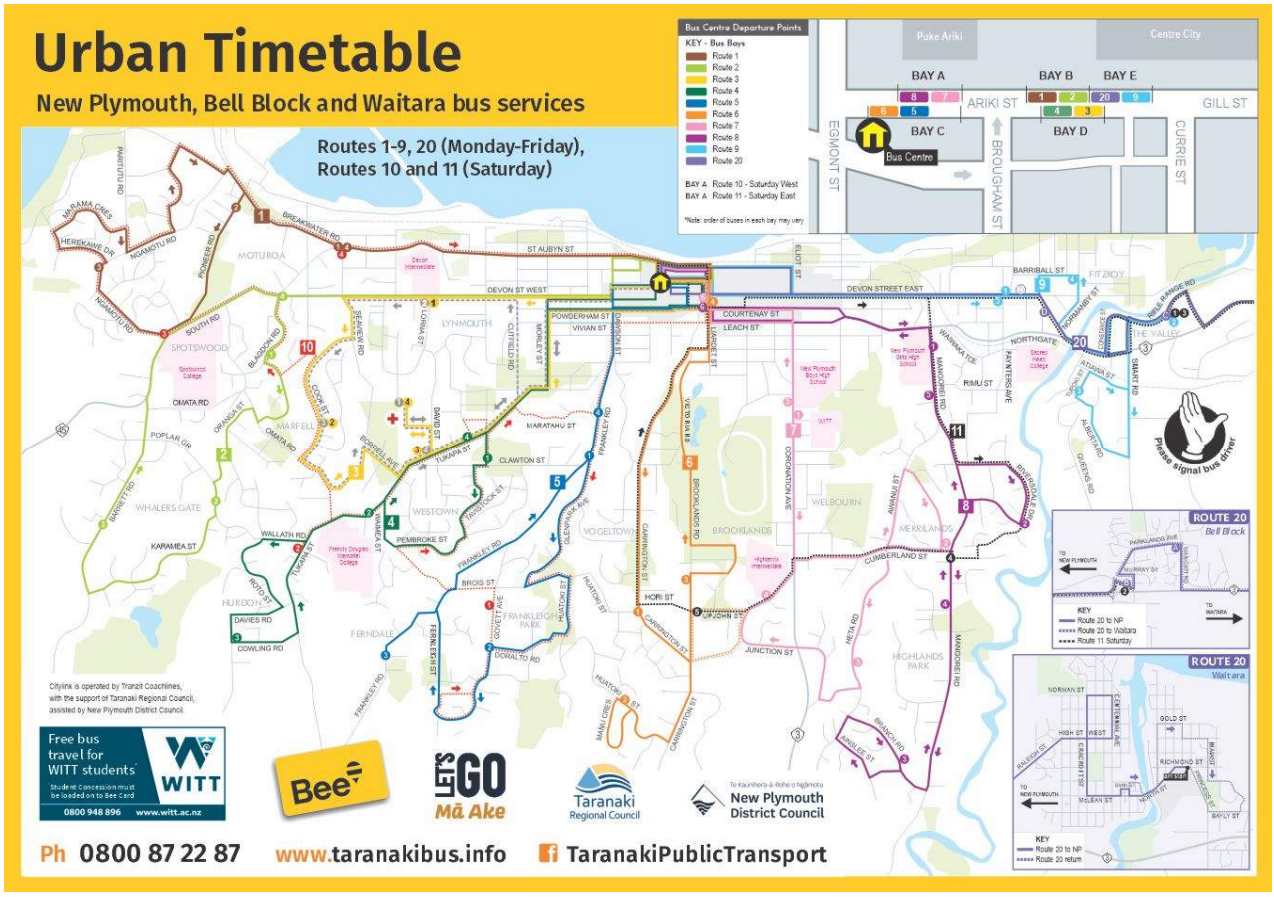


Figure 4-1: New Plymouth urban bus network timetable

Furthermore, bus frequencies on all New Plymouth urban routes are low, with most bus routes having departures only every 1-2 hours and limited services during off-peak times. This can result in long travel times and significant delays for movements across the city when transfer windows at the central bus hub and stops with intercepting routes are not well aligned. A typical bus timetable for Route 8 is shown in **Figure 4-2**.

Depart Ariki St Ⓐ	NPGHS ❶	Riversdale Dr ❷	Branch Rd ❸	Mangorei Rd Opposite Smith ❹	NPGHS ❺	Arrive Ariki St Ⓐ
***Starts 7.04am corner Mangorei Rd/Karaka St**						
		7.05 AM	7.10 AM	7.14 AM	7.17 AM	7.30 AM
7.30 AM	7.36 AM	7.39	7.45	7.48	7.51	8.00
8.10	8.16	8.19	8.25	8.28	8.31	8.48
9.00	9.06	9.09	9.15	9.18	9.21	9.30
10.05	10.11	10.14	10.20	10.22	10.25	10.38
11.15	11.21	11.24	11.30	11.33	11.36	11.43
12.25 PM	12.31 PM	12.34 PM	12.40 PM	12.43 PM	12.45 PM	12.53 PM
1.35	1.41	1.44	1.50	1.53	1.55	2.03
2.55	2.58	3.00	3.07	3.10	3.25	3.35
3.40	3.46	3.49	3.55	3.58	4.00	4.08
4.20	4.26	4.29	4.35	4.38	4.40	4.48
5.10	5.16	5.19	5.24	5.27	5.29	5.38
5.50	5.56	5.59	6.04	6.07	6.09	6.19
6.20	service runs from Ariki St until last passenger disembarks (drop off service only)					

Times in **BOLD** are scheduled, all other times are approximate

Figure 4-2: Typical bus timetable, example from Route 8: Merrilands / Highlands Park

Despite direct bus routes to the CBD, travel time to the CBD is generally longer by bus than by private vehicle. **Table 4-3** shows the approximate travel time to New Plymouth Central by public transport compared to private vehicle is double for Inglewood and Waitara, and trip for Bell Block.

Table 4-3: Travel times to and approximate trips to New Plymouth Central SA2 by public transport and private vehicle[21]

Origin	Public Transport		Private Vehicle	
	Travel time	Daily person trips	Travel time	Daily person trips
Bell Block	30 minutes	< 12	10 minutes	585
Inglewood	40 minutes	< 15	20 minutes	228
Waitara	40 minutes	< 21	17 minutes	300

4.1.3 Public perception of Public Transport

Community consultation on the New Plymouth public transport network was undertaken by TRC to inform the development of future transport policy and speed management plans through the Future of Transport consultation[22]. Respondents identified several barriers that are inhibiting the utilisation and effectiveness of the public transport network:

- The current scheduling of bus services does not properly accommodate the needs of many potential users.
- Infrequent services and routes that do not align with residents' desired destinations.
- The convenience of travelling by private vehicle or active modes far surpasses that of public transport.
- Bus timetable and route information is inaccessible and poorly presented at both stops and online

It is worth noting from this consultation, that there is a lack of evidence indicating that bus fare prices are perceived as prohibitive.

Respondents also identified desired infrastructure improvements to enhance their experience of the public transport system. The most suggested improvements included:

- Digital time boards at stops that provide real-time information to passengers.
- Safer and more secure shelters at various stops along the network.
- Park and ride facilities.

It was suggested by some respondents that bus usage is unsafe. However, this statement lacks substantiating evidence.

4.1.4 Mode shift potential and network alignment

Significant mode shift from private vehicles to public transport for work and employment trips could be achieved across the district by:

- Decreasing public transport travel times on existing routes relative to those of private vehicles.

[21] The Citylink bus schedule and Google Maps were used to approximate travel times for public transport and private vehicles respectively. Private vehicle travel times were measured from the suburb centre, so actual travel times may differ slightly. Approximate daily weekday trips were calculated from 2018 Census Data.

[22] https://www.trc.govt.nz/assets/Transport/The-Road-Ahead-Public-Consultation-Summary-March-to-April-2023.pdf

- Improving scheduling and increasing frequency of bus services.
- Realigning and/or introducing bus services to cater for typical trips.
- Improving facilities and infrastructure on the public transport network.

For example, improving public transport travel times to New Plymouth Central from Bell Block and Waitara could encourage mode shift away from private vehicles in these areas (see **Table 4-3**).

However, it is important to consider the specific needs of communities around the district. Due to their population sizes, remoteness, and limited accessibility to New Plymouth City, it may not be effective to provide a high level of public transport in less urban areas to improve network efficiency. Places like Inglewood have a significantly lower number of commuters coming into New Plymouth Central, so mode shift options are limited. Options other than improved public transport should be investigated to improve network efficiency in these areas in a more cost-effective way.

One area in New Plymouth with significant potential for mode shift away from private vehicles is Waiwhakaiho-Bell Block South. This is a large employment area, with 4,653 people arriving daily for work from 41 different areas across the district according to the 2018 Census (see **Figure 4-3)**. According to this data, almost 95% of the trips to work arriving in Waiwhakaiho-Bell Block South are by private vehicle and none are by public transport. The top five areas that people travel from for work and education in Waiwhakaiho-Bell Block South are Bell Block West, Waitara West, Bell Block East, Fitzroy-Glen Avon, and Inglewood. Most trips to the area take longer by bus and require at least two separate bus services with a changeover in the CBD or at stops with intercepting routes and a potentially long last-mile journey from a route 20 stop in Bell Block. For example, travelling to Waiwhakaiho-Bell Block South from Spotswood takes approximately 40 minutes by bus using routes 2 and 20, and only 14 minutes by car.

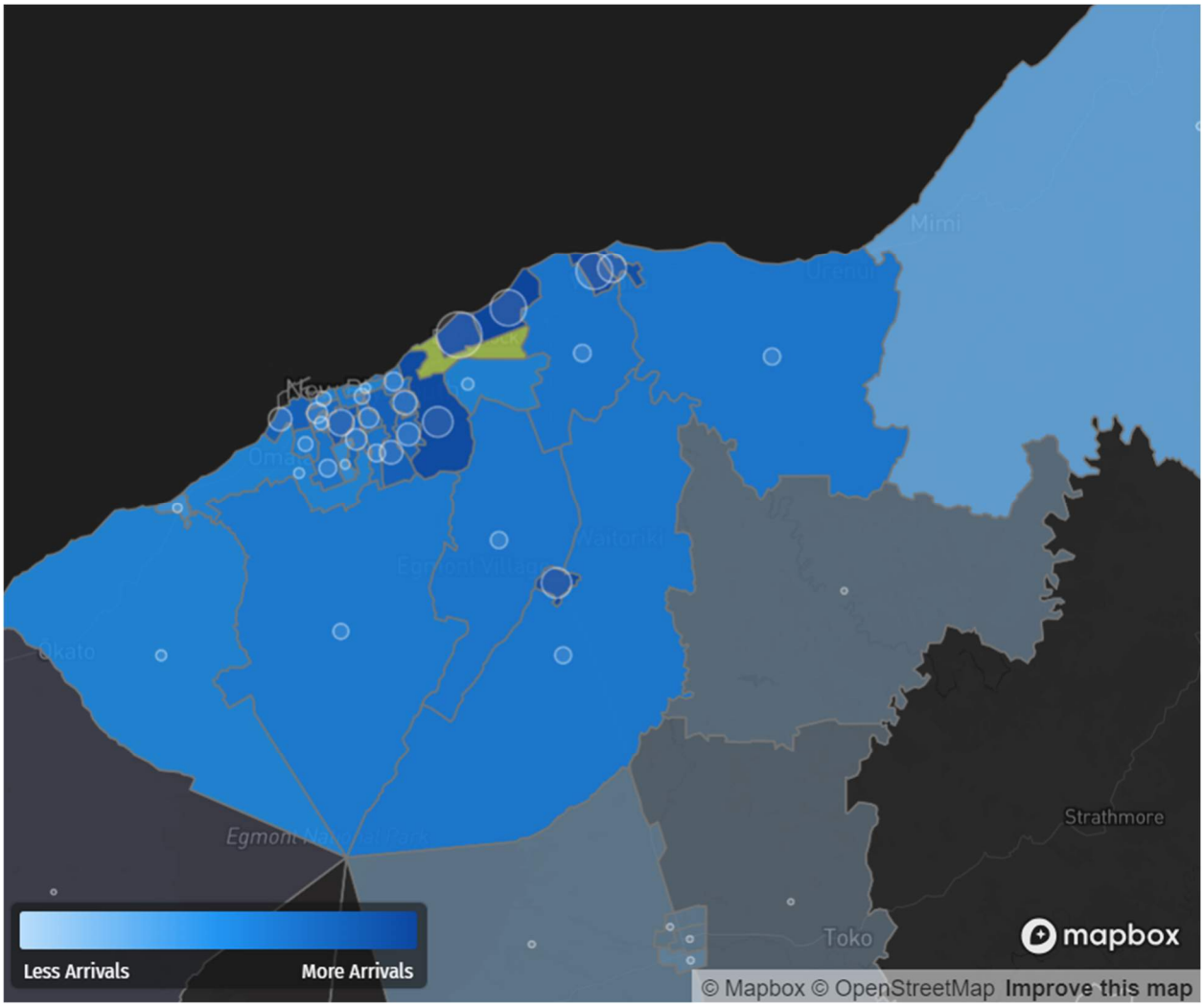


Figure 4-3: Daily work and education trip arrivals to Waiwhakaiho-Bell Block South (green) from the rest of the New Plymouth District. Areas in dark blue indicate a higher number of arrivals to Waiwhakaiho-Bell Block South originate from those areas.

Another area in New Plymouth with potential for mode shift away from private vehicles is Westown. The 2018 Census identified 1,740 people arriving daily for work from 32 different areas across the district. According to this data, almost 90% of the trips to work arriving in Westown are by private vehicle and around 1% are by public transport. Again, most trips to the area are longer by bus and require at least two separate bus services with a changeover in the CBD or at stops with intercepting routes. For example, travelling to Westown from Highlands Park takes approximately 60 minutes by bus using routes 8 and 4, and only 8 minutes by car.

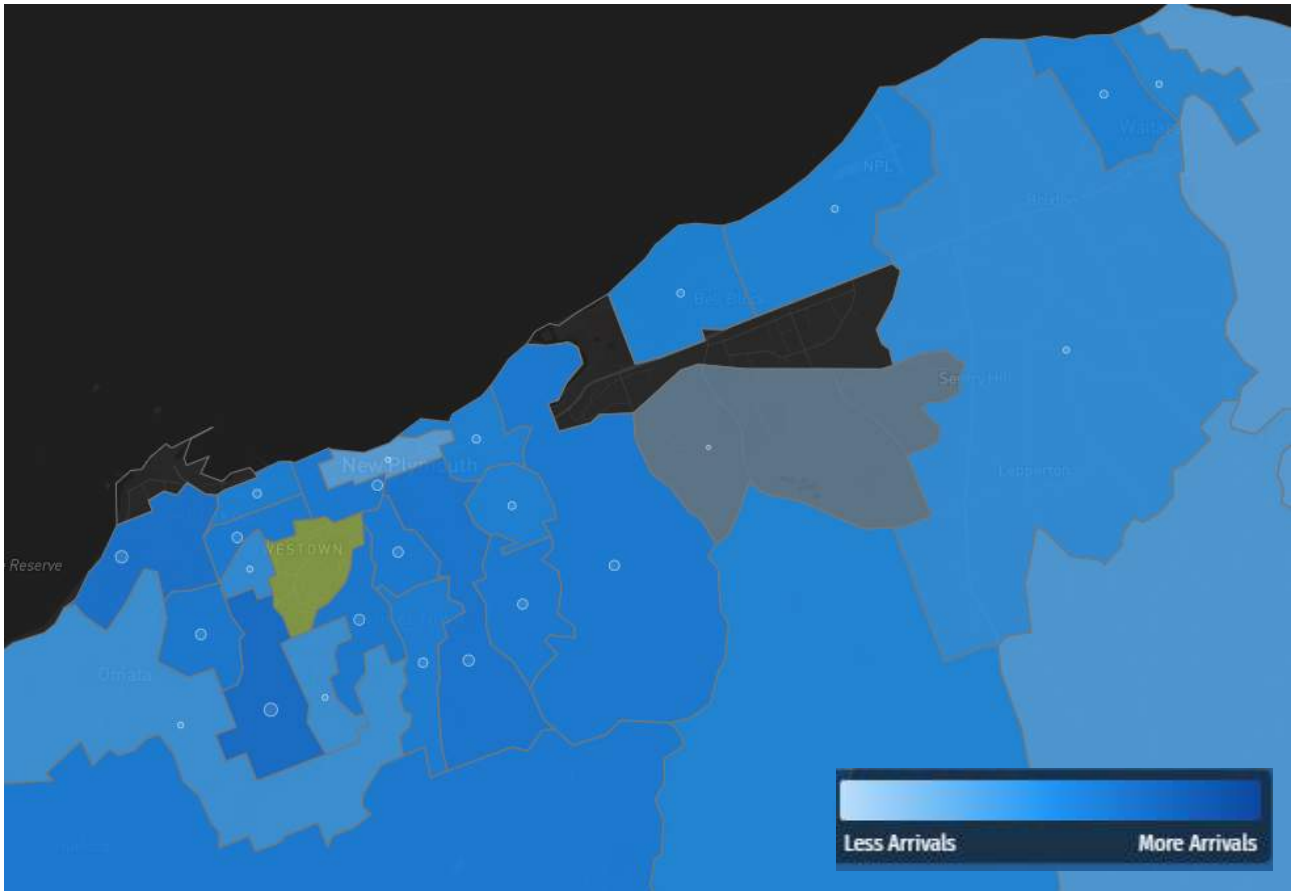


Figure 4-4: Daily work and education trip arrivals to Westown (green) from the rest of the New Plymouth District. Areas in dark blue indicate a higher number of arrivals to Westown originate from those areas.

Through better network alignment and timetabling, such as direct east to west connector routes, public transport could become a more viable option compared to private vehicles for a significant proportion of commutes and other trips for areas like Waiwhakaiho-Bell Block South and Westown.

4.1.5 Current bus patronage

The TRC have provided total bus patronage counts from July 2021 to June 2022, representing the most relevant and accessible data on TRC bus patronage over a full year. Due to the disruptive influence of the COVID-19 pandemic, previous years' data is not considered to be an accurate representation of bus patronage. Generally, higher patronage is observed on the south-western urban routes and those aligned with key destinations. This data is represented in **Figure 4-5** and **Figure 4-6**.

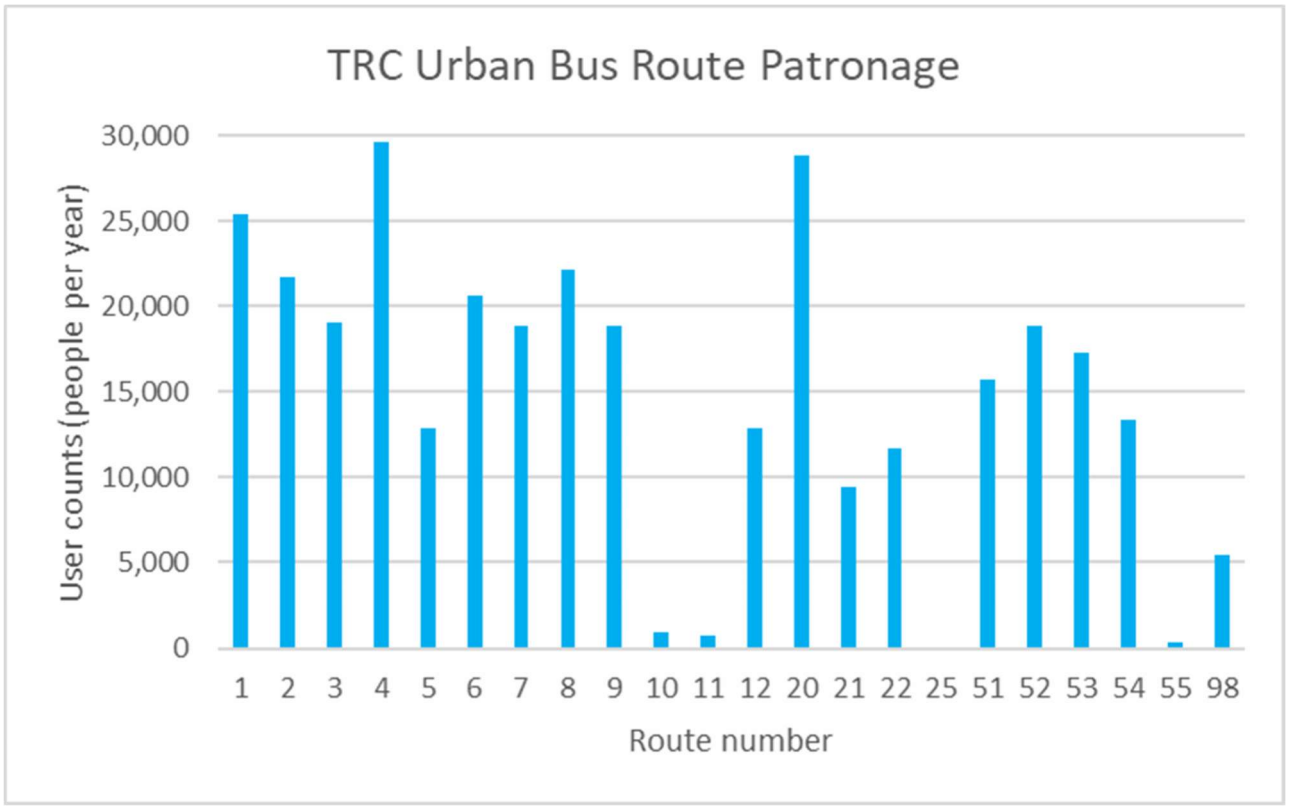


Figure 4-5: TRC urban bus route patronage from July 2021 to June 2022

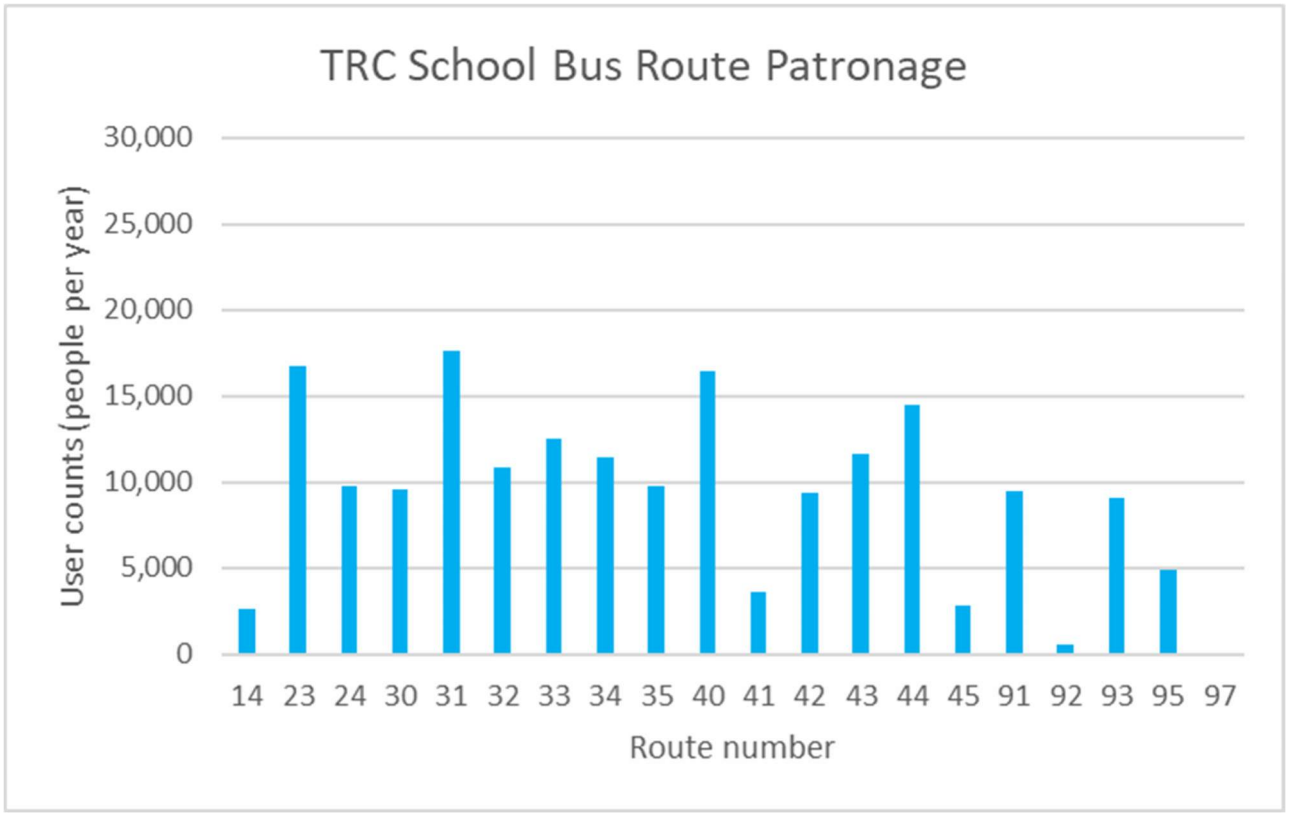


Figure 4-6: TRC school bus route patronage from July 2021 to June 2022

Route 4 Westown/Hurdon has the highest patronage of the TRC urban routes. This route is aligned with New Plymouth hospital, the largest employer in New Plymouth, and Francis Douglas Memorial College. Although this route has the highest patronage, daily trips arriving to work in Westown by public transport are dwarfed by private vehicles (see **Section 4.1.4.**).

Route 20 Waitara/Bell Block/New Plymouth is the second highest patronage route. This route is aligned with The Valley shopping centre and partially aligned with employment opportunities in Waiwhakaiho-Bell Block South. This route also supports a relatively large number of passengers carrying bicycles onboard. This indicates potential to better attract active mode users across the wider suburbs of New Plymouth to utilise public transport.

Among the TRC school routes, Route 31 Leperton/Bell Block to Highlands/Woodleigh has the highest patronage. Most of the school routes that provide access from outside the central New Plymouth area generally have higher patronage. Passengers carrying bicycles are less common on these bus routes, with a total of only 18 bicycles registered across all school routes for the year.

However, as **Table 4-4** shows below, Taranaki has a much lower bus boardings per capita figure than larger centers like Christchurch or Wellington. Note it is comparable with Manawatū / Whanganui.

Table 4-4: Bus boardings for selected New Zealand regions

Region	Total 12-month bus boardings (18/19)[23]	Population (2018 census)	Boardings per capita
Taranaki	650,000	117,561	5.5
Manawatū/Whanganui	1,340,000	238,797	5.6
Wellington	24,750,000	506,814	48.8
Canterbury	13,720,000	599,694	22.9

4.1.6 Problem 1 summary points and evidence gaps

Key points on mode split of travel to work and travel to education Census Data:

- The use of public transport and active transport is more prevalent amongst people traveling to education.
- The use of private vehicles for work related travel has increased in the past decade.

Key points on current public transport network alignment, scheduling, and travel times:

- Direct connectivity east to west and between outer suburbs is limited with the current bus network.
- Bus frequency is very low, which can lead to long travel times and delays for movements across the city.
- Public transport is significantly slower that private vehicles for journeys directly to the CBD and across the city and currently there are fewer people taking public transport than driving private vehicles to the city centre.

Key points on the Future of Transport consultation findings:

- The barriers to utilising the public transport system in New Plymouth include inadequate scheduling, limited routes, infrequent services, and inconvenience of use relative to private vehicles and active modes.

[23] https://www.transport.govt.nz/statistics-and-insights/public-transport/sheet/boardings-all-modes

- Improvements in infrastructure such as real-time information displays, safer shelters, and park and ride facilities were identified as the most desired improvements by respondents.
- There is no evidence that suggests public transport is prohibitively priced or unsafe.

Key points on mode shift potential:

- Low patronage because of long travel times and a low current level of service on public transport suggest that private vehicles are the preferred option for transport to key destinations in New Plymouth City.
- Bell Block and Westown have high numbers of commuters to and from, and there is significant potential in these areas to affect mode shift away from private vehicles onto public transport through better-connected public transport services to these areas.
- Alternative transport options should be investigated to help support communities away from central New Plymouth with smaller volumes of commuters, as the social impact of this can be significant.

Key points on current bus patronage:

- Routes that have higher patronage tend to be aligned with key destinations around the city.
- Some of these key destinations and employment areas still have very low proportions of daily trips arriving for work by public transport compared to private vehicles.
- There is potential to better attract active mode users to utilise public transport as part of their trips.
- Bus routes need to be better aligned with commuter movements.

The following aspects should be explored further to develop a better understanding of the causes and impacts of problem 1:

- Travel patterns and choices outside of travelling to work and education.
- Public transport reliability.
- Quality and quantity of active mode links to bus stops and shelters across the district.

4.2 Problem 2

Most urban areas have low density residential developments that make access by public transport, walking and cycling difficult resulting in high dependency on private vehicles and increasing transport costs for the community that especially impact lower socio-economic groups.

This problem relates to the high reliance on private vehicles within the New Plymouth District and how this is reinforced by lower density developments in urban areas. Public and active transport is put at a disadvantage by lower density developments, as they create sparse public transport catchments and increase journey distances. Transport costs in this context relate to vehicle operating costs, and costs of wider societal impacts from accidents, lack of choice, and travel delays.

4.2.1 Population Density and Land Use

The population density of the entire New Plymouth District according to 2018 Census data is less than 50 people/km^2. However, population density varies significantly between Statistical Area 2 (SA2) areas within the district, with the population density of New Plymouth City being approximately 800 people/km^2 (see **Table 4-5**). Residential and urban areas across the district are comprised mostly of lower density developments. Lower density developments are difficult to service effectively through public transport, walking, and cycling. This can lead to increased reliance on private vehicles and travelling longer distances for necessary trips to locations of work, education, services, and retail. Providing higher density development, especially along key transport routes, will inhibit urban sprawl, enable more people to be

effectively serviced by the TRC bus network, and make public transport, walking, and cycling more viable transport options compared to private vehicles.

Table 4-5: Example population densities in the New Plymouth District (derived from 2018 Census)

Area	Approximate Population Density
New Plymouth District	<50 people/km^2
New Plymouth urban area[24]	800 people/km^2
New Plymouth Central (New Plymouth Central, Kawaroa and Strandon)	1,400 people/km^2
Bell Block (residential)	1,500 people/km^2
Waitara	1,200 people/km^2

The need to increase density in New Plymouth is signalled in the NPDC Proposed District Plan, which implements Medium Density Residential Zones. This zoning enables medium density residential development up to three stories, including detached, semi-detached, terraced housing, and low-rise apartments. It applies to specific areas in New Plymouth City, Bell Block, Waitara, Inglewood, and Ōākura centres (see **Figure 4-7**). This zoning aims to discourage urban sprawl, increase housing supply and options within the district, and is supported by the National Policy Statement on Urban Development[25] (NPSUD) which the district plan must 'give effect to'. Increasing density in these key areas presents an opportunity to better service populations across the district with public transport, walking, and cycling.[25]

[24] Approximate urban area of New Plymouth city based on the adjacent SA2 area (excluding Bell Block)

[25] https://environment.govt.nz/assets/publications/National-Policy-Statement-Urban-Development-2020-11May2022-v2.pdf

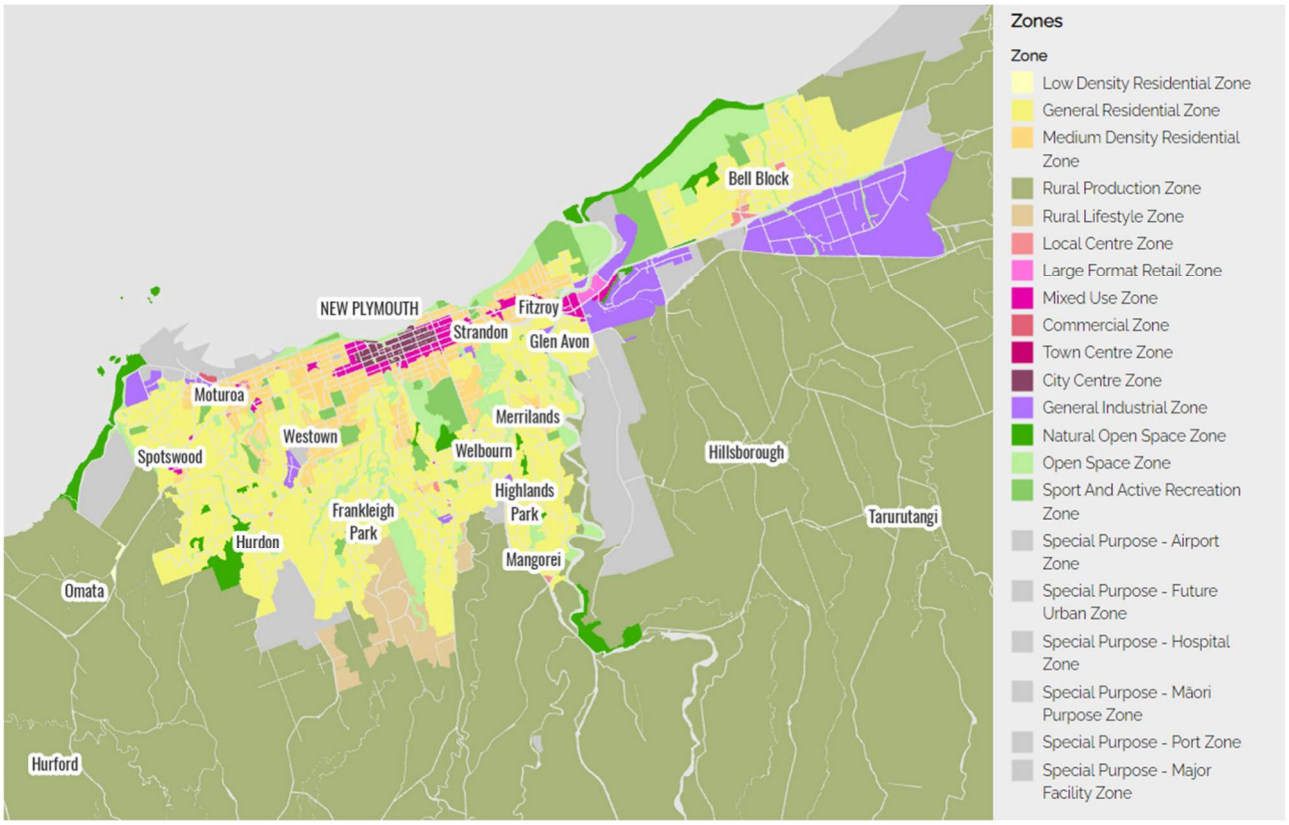


Figure 4-7: NPDC Proposed District Plan zoning

4.2.2 Current Mode Split

As discussed in **Section 4.1**, the mode split in the New Plymouth District has increased for private vehicles and stayed low for public and active transport usage over the last three census periods. **Figure 4-8** shows that the New Plymouth District has a high proportion of private vehicle use for commuting, with almost 80% of people in the New Plymouth District using a private or company vehicle to travel to work. This is higher than the New Zealand average of approximately 70%. Furthermore, percentages of people travelling to work by public transport (public bus) and active modes (cycling and walking) all sit below 5% and are all lower than the respective New Zealand averages.

Within the New Plymouth area, SH3 from Bell Block (north) is the most congested corridor and has the highest forecast delay into the future, suggesting that this corridor has the most potential for model shift.

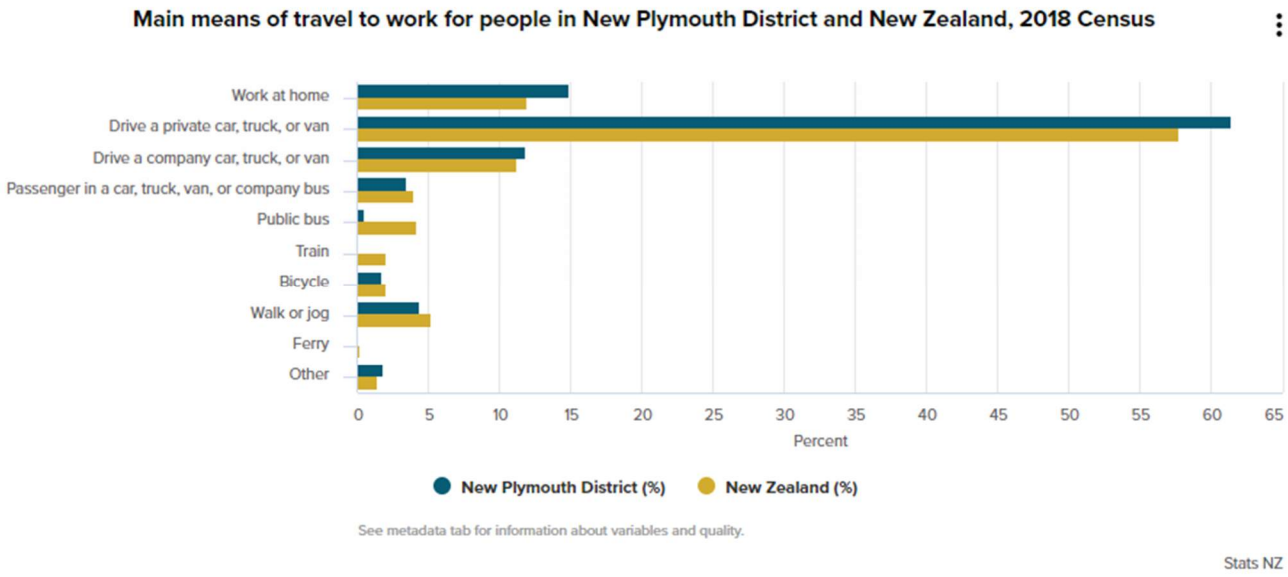


Figure 4-8: Travel to work data from 2018 Census

Figure 4-9 shows that the use of school buses and cycling for travel to education is slightly higher than the respective New Zealand averages. However, travelling to education as a passenger in a private vehicle is significantly higher than the New Zealand average, and walking or jogging is lower.

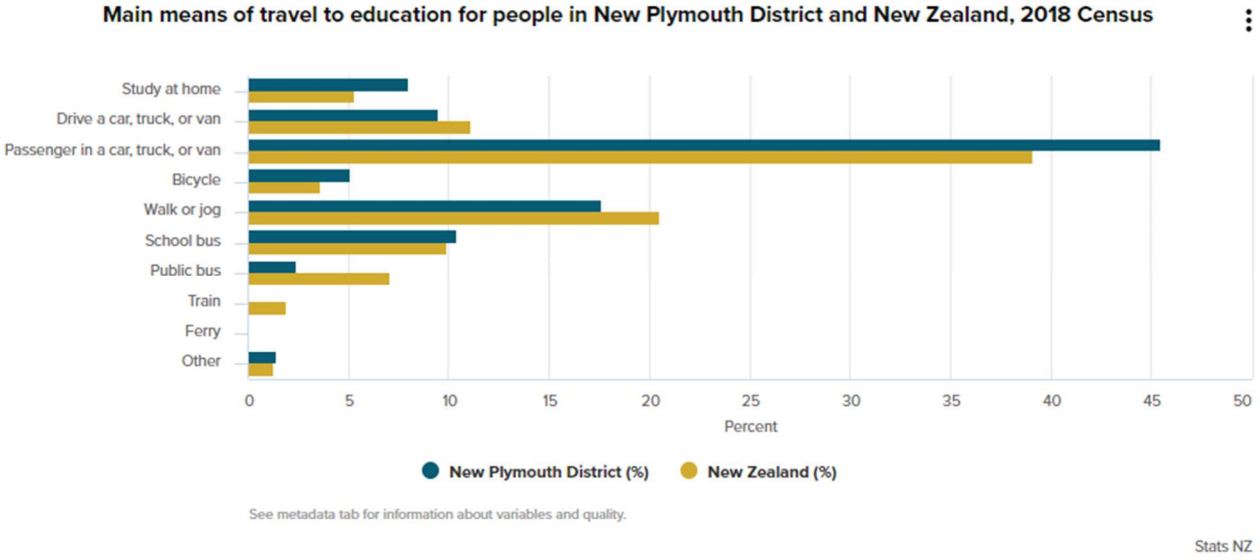


Figure 4-9 Travel to education data from 2018 Census

Also of note is the percentage of work at home and study at home across the New Plymouth District, which is higher than the respective New Zealand averages. This suggests that the nature of some existing employment and education opportunities in the district may lead itself to remote working and education schemes.

4.2.3 Development Areas

The Proposed District Plan has identified five development areas (0-10 year growth forecast) across the New Plymouth District (see **Figure 4-10)**, which are located in the outskirts of New Plymouth city. The development areas currently have limited transport connectivity to the rest of the city beyond private vehicles. However, the TRC have stated that existing bus routes will be extended to service the development

areas. Routes 4, 9, and 20, currently service areas close to the proposed development areas, and so could be extended to cover these areas (see **Figure 4-10**). Although these extensions may increase bus route travel times, their primary objective is to establish seamless connectivity throughout all areas. This strategic approach results in residents and commuters within the development areas enjoying the benefits of an interconnected and accessible transport network.

The development areas in the Proposed District Plan are located away from central New Plymouth City, where the highest concentration of employment and education opportunities are located. According to the 2018 Census:

- New Plymouth Central, Kawaroa, Strandon, Westown, and Welbourn combined have over 11,000 daily arrivals for work from across the city and the wider district.
- New Plymouth Central, Moturoa, Spotswood, Strandon, Westown, and Welbourn combined have over 6,000 daily arrivals for education from across the city and the wider district.
- The spread of origins of the daily arrivals for work and education in these areas indicates lower density and lower mixed-use zoning across New Plymouth.
- Given the proposed zoning from the Proposed District Plan, these central areas are likely to provide significant work and education opportunities for the development areas in the future.
- This could therefore lead to high reliance on private vehicles to access work and education from the development areas if improvements to the public transport, walking, and cycling network are not made.

However, the more western development areas in the Proposed District Plan are located close to the Waiwhakaiho-Bell Block South, which is an industrial area with significant employment that sees over 4,500 daily arrivals for work, according to the 2018 Census. The TRC public transport network does not currently service the industrial area in Waiwhakaiho-Bell Block South, resulting in a high reliance on private vehicles for commuting to work in this area (96% of arrivals). The western development areas could therefore enable proximity to place of work and a reduced reliance on private vehicles for those employed in the Waiwhakaiho-Bell Block South area, if improvements to the public transport, walking, cycling network and vehicle occupancy are made.

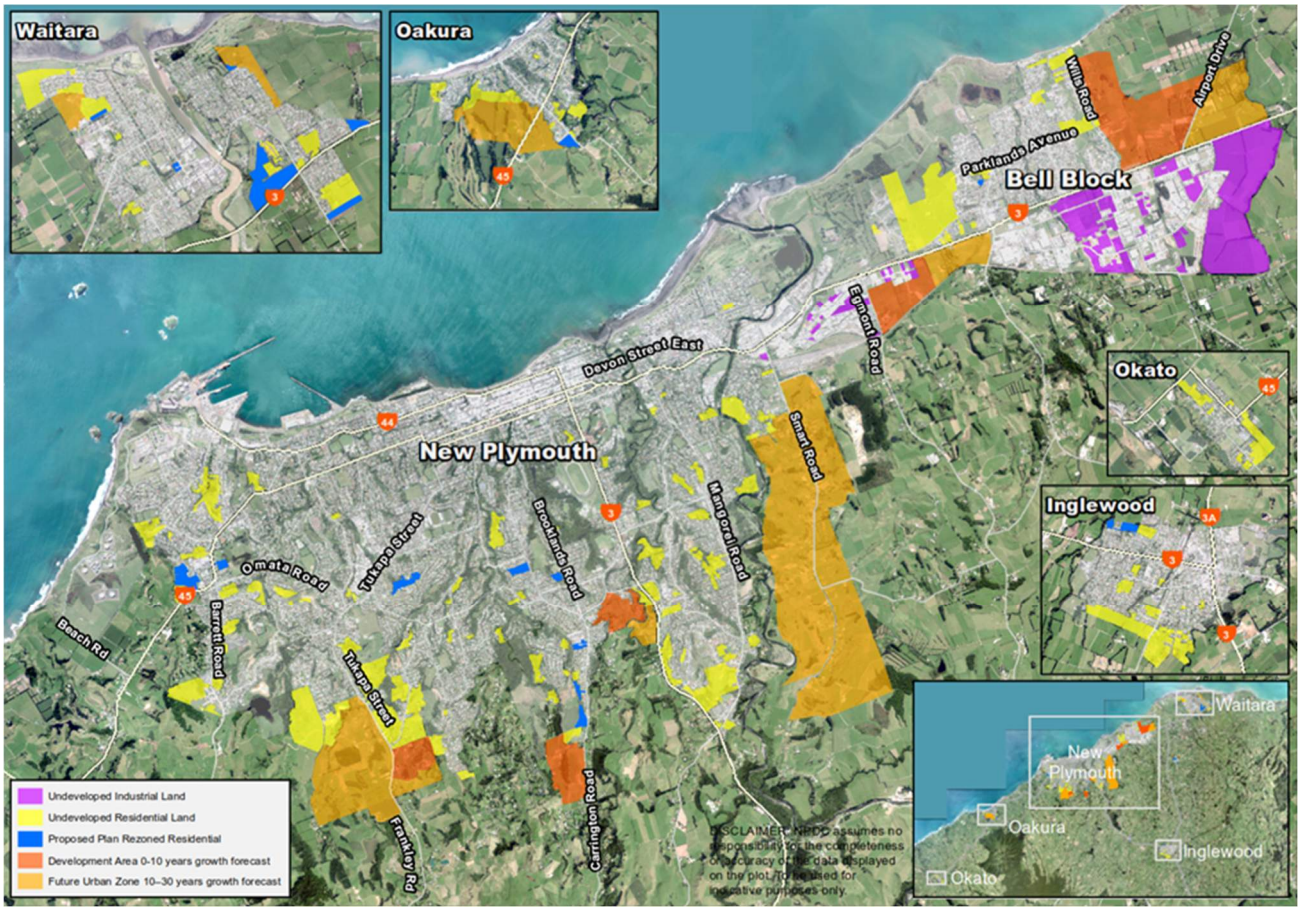


Figure 4-10: Development areas in NPDC Proposed District Plan (highlighted in dark orange)

4.2.4 Transport Costs

Transport costs were the third highest weekly household expense in New Zealand in recent years ($215 per week in 2019) (see **Figure 4-11**) and the mode share of private vehicles is high across New Zealand (see **Figure 4-8** and **Figure 4-9**), which indicates that operating a private vehicle is a significant household expense in New Zealand. The rising costs of fuel (see **Figure 4-12**) and driving private vehicles (see **Figure 4-13**) over the last 12 years, particularly after the onset of COVID-19 in 2020, indicates that operating private vehicles, especially for regular trips over longer distances, will continue to become more expensive into the future. Therefore, continued reliance on private vehicles could become an even more significant financial burden for households across the New Plymouth District where car alternatives are not viable due to limited public transport connections and poor active mode facilities over long distances. This will have a greater impact on those who will likely need to travel further for work, employment, and services, such as those in the proposed development areas (see **Figure 4-10**) and rural District towns. Ultimately, this suggests that more affordable transport options are needed across the district.

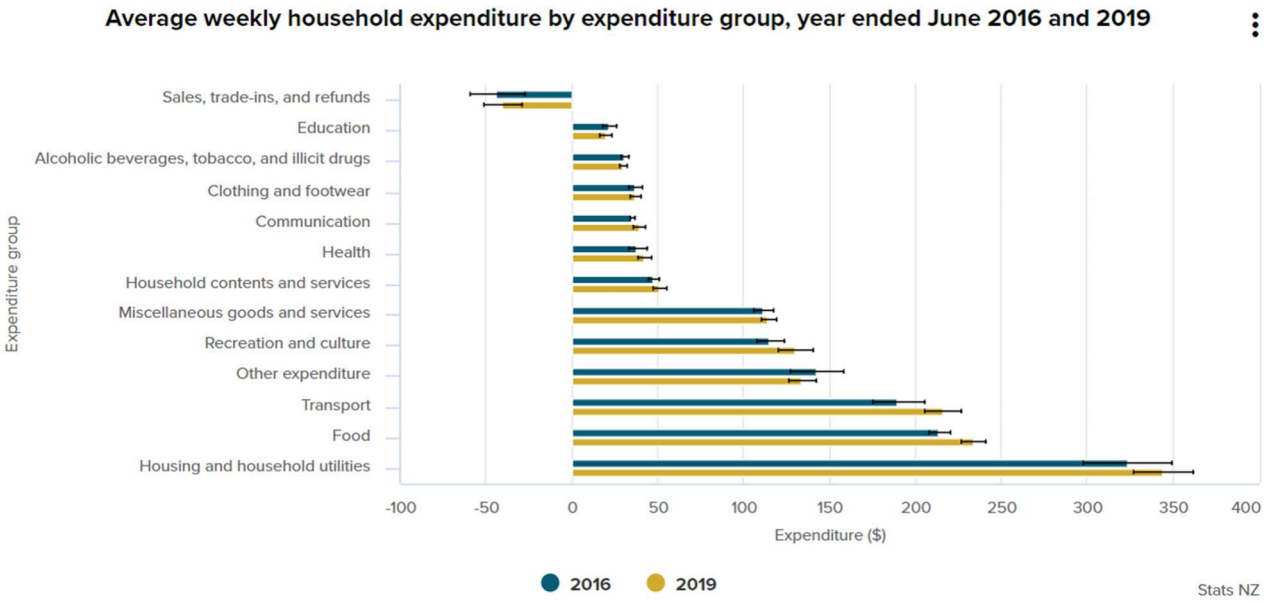


Figure 4-11 Average weekly household expenditure 2016 - 2019

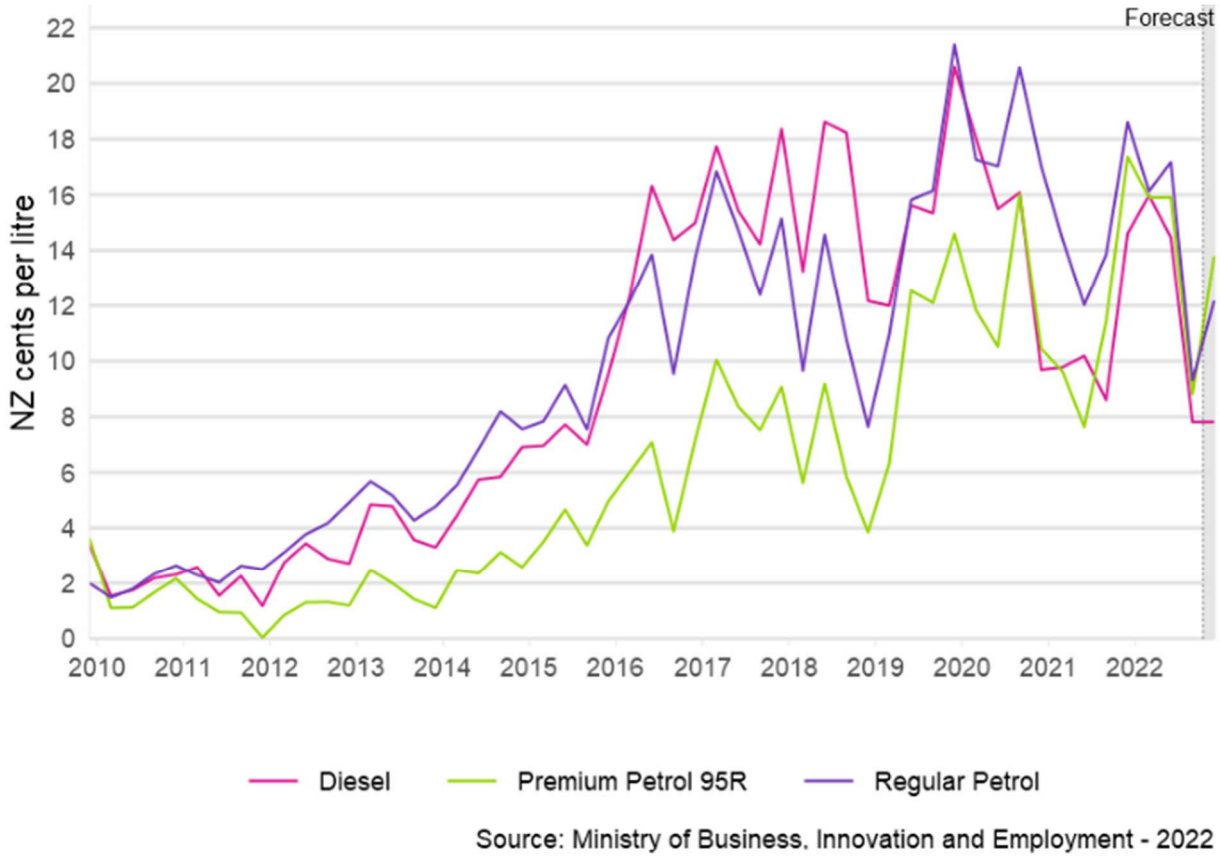


Figure 4-12: Cost of fuel from 2010 to 2022 in New Zealand

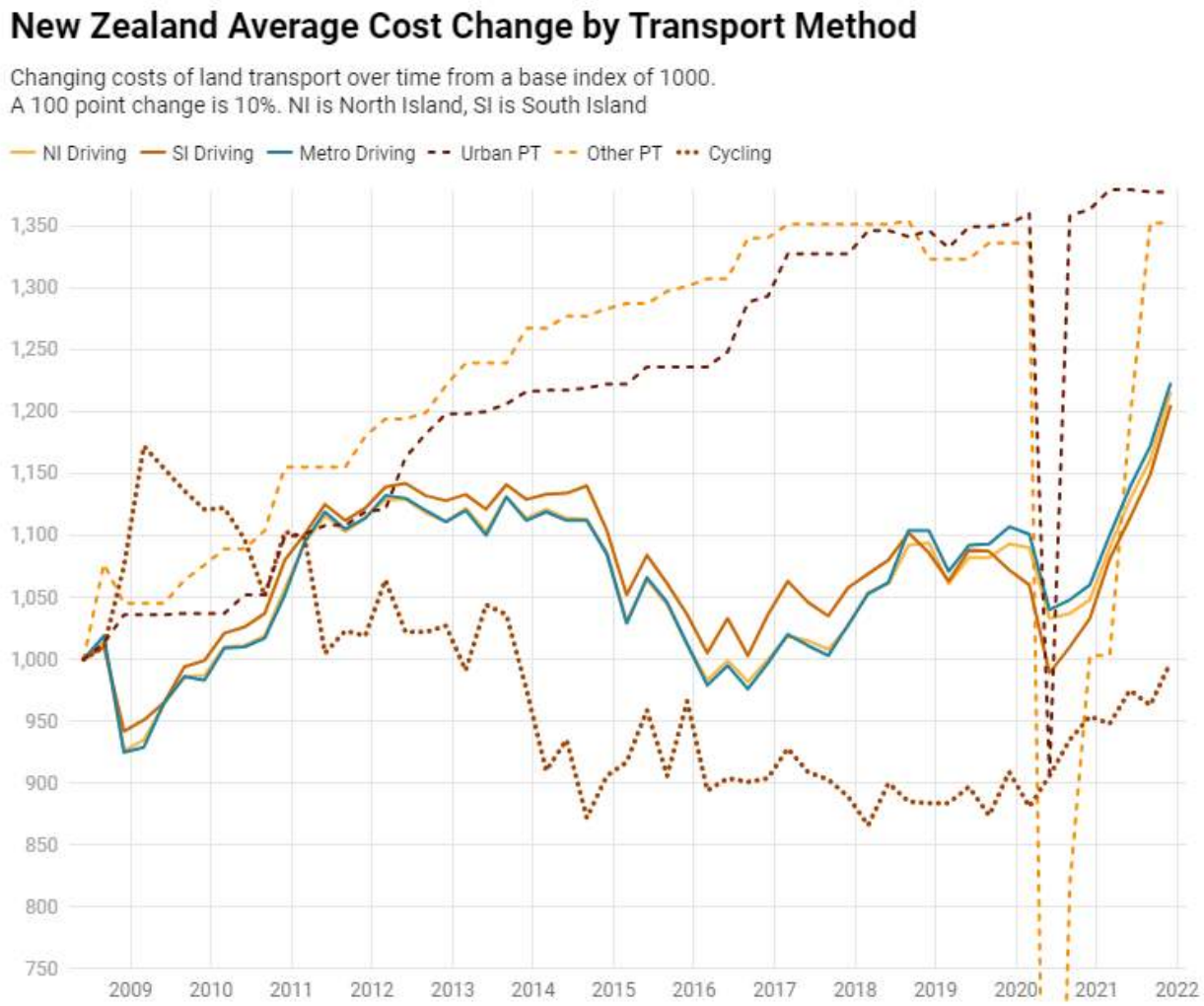


Figure 4-13: Land Transport Costs (AA and Stats NZ)

Although public transport costs across New Zealand have seen larger increases compared to driving costs over the last 12 years (see **Figure 4-13)**, public transport, where available, is generally the cheaper option compared to driving.

An example of the relative costs and convenience of driving and public transport for New Plymouth is given below:

- The AA estimated that owning a small vehicle in 2021 costed approximately $22 per day, including both fixed and flexible expenses[26].
- In New Plymouth Central, parking costs are set at $3 per hour on weekdays, while free parking is available on Sundays and in Urenui, Waitara, Inglewood, Fitzroy, Westown, Strandon, Moturoa, Ōākura and Okato shopping areas in time-restricted parking bays. There are also various free all day parking areas throughout the residential areas surrounding Central New Plymouth.
- Using public buses provided by TRC in New Plymouth City currently costs $3 in cash for a one-way trip (reduced to $2 with a bee card). Assuming a resident needs at least one return trip, a round trip in New Plymouth City would cost a maximum of $6 per day.

[26] https://www.aa.co.nz/cars/motoring-blog/vehicle-ownership-costs-more-than-just-the-purchase-price/

- Bus fares differ based on the number of zones travelled. For example, a one-way trip from Inglewood to New Plymouth Central costs $4 in cash.
- Plenty of cheap and readily available parking attracts high level of private car usage.
- However, private vehicle usage remains the primary method of transport in New Plymouth. This is likely due to the relative convenience and available facilities compared to public transport, walking, and cycling. For example, free and time unrestricted parking just outside of the CBD area.

This suggests that the current cost differences between using public transport and private vehicles are not enough to effectively encourage more people to use public transport over private vehicles. As private vehicle operating costs increase, lowering bus fares in the New Plymouth District might encourage some mode shift. However, improvements to public transport accessibility, routes, and frequency will likely have a greater impact.

It should be noted that currently choosing between the car or bus is not an either/or in New Plymouth. It is likely using the car AND bus for most people, depending on the trip. The car ownership expense would only be eliminated if residents chose not to own a car at all. Therefore, car users are choosing between using their car and the fuel costs + parking costs or leaving their car at home and paying a bus fare instead. This may be different to metro areas where residents could live conveniently with no car at all.

4.2.5 Impacts on lower income communities

Figure 4-14 shows the median personal incomes across different areas of the New Plymouth District from the 2018 Census. New Plymouth Central has the highest median income, whereas Waitara has the lowest median income.[27] Waitara also has a higher reliance on private vehicle to commute to work and a lower percentage of people who work from home as compared to the whole New Plymouth District (see **Figure 4-15**). This suggests that reliance on private vehicles creates a disproportionate financial burden for people across the district that live in areas away from New Plymouth City with lower incomes such as Waitara.

[27] https://www.stats.govt.nz/tools/2018-census-place-summaries/waitara-east#income

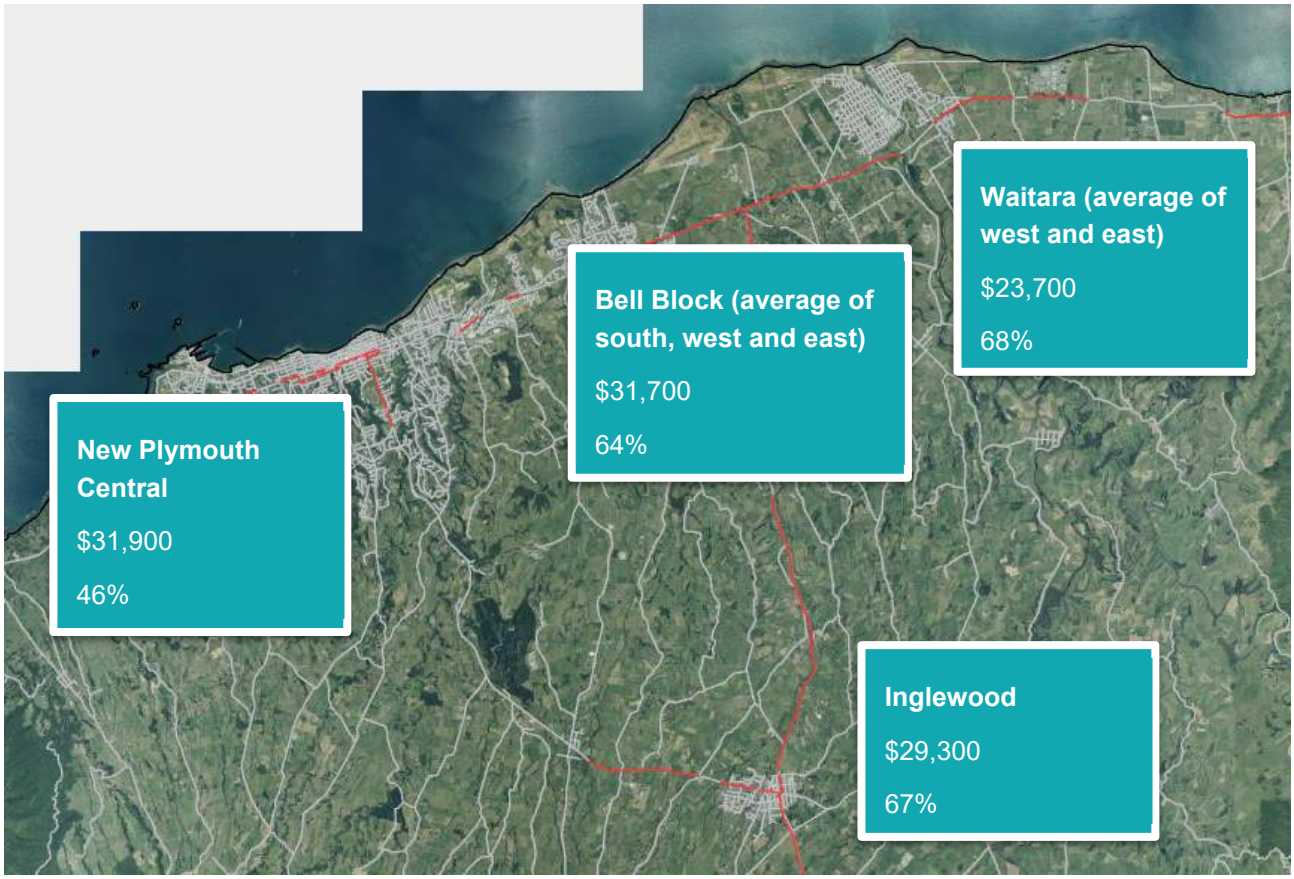


Figure 4-14: Map showing distribution of median incomes and % that drive a private vehicle to work from 2018 Census

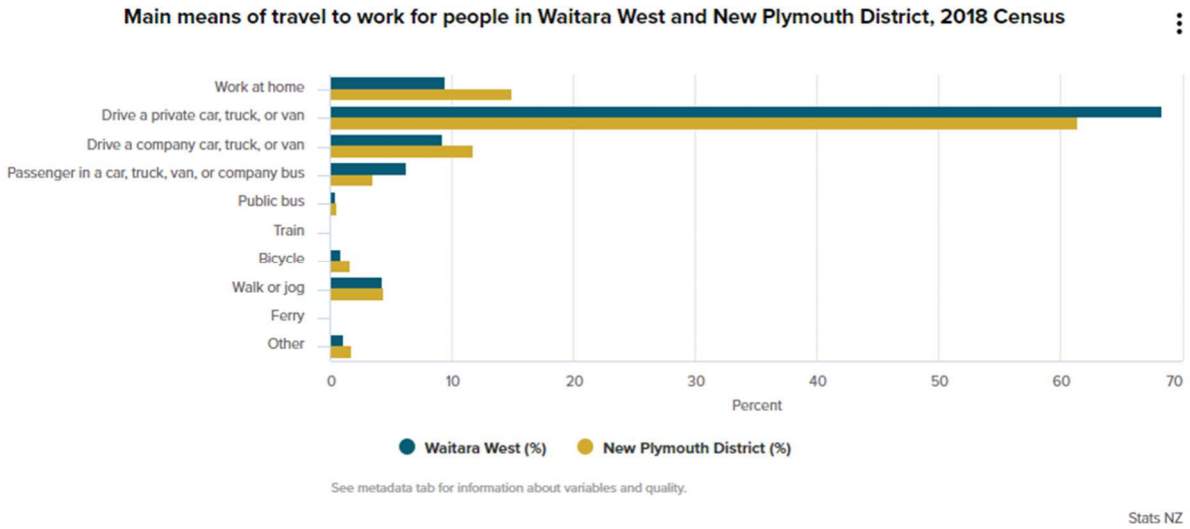


Figure 4-15: Mode split of travel to work for Waitara and the New Plymouth District from the 2018 Census[28]

From the perspective of safety, reliance on private vehicles has a disproportionately larger impact on people with lower incomes, especially those who are Māori. People with a lower income are more likely to purchase a vehicle with a lower safety rating as they are generally cheaper. **Figure 4-16** shows that, in the New

[28] https://www.stats.govt.nz/tools/2018-census-place-summaries/waitara-east#income

Plymouth District, Māori have a proportionately lower income compared to all people.[29] The research report *He Pūrongo Whakahaumaru Huarahi Mō Ngā Iwi Māori - Māori road safety outcomes* by NZTA reveals that Māori are over-represented in less safe vehicles. The mean number of people travelling in a vehicle with a one-star safety rating that is involved in a DSI crash is 1.7 for those driven by Māori and 1.3 for those driven by non-Māori. This shows an inequitable outcome for the Māori population in the New Plymouth District, who are exposed to a higher risk of injuries in the event of a crash.[30]

Figure 4-16: Income distribution in percentage for all people and Māori in the New Plymouth District

4.2.6 Problem 2 summary points and evidence gaps

Key points on population density and zoning from the proposed district plan:

- The medium density residential zones in the proposed district plan are a strong signal for the need to increase density in New Plymouth. These zones should deliver mode shift away from private vehicles if they are well integrated with public transport and active mode transport facilities.
- In general, providing higher density development along key transport routes will inhibit urban sprawl and improve transport choices for more populations across the district.

Key points on current travel to work and education mode split:

- Existing public bus routes and frequencies does not position buses as an effective means of transport for people who travel to work in the district.
- Existing walking and cycling facilities and the required travel distances will not support the growth of active modes as an effective means of transport for people who travel to work or education in the district.
- Low parking fees in New Plymouth CBD and the ease of parking in local streets both contribute to cars being the preferred option.

[29] https://www.stats.govt.nz/tools/2018-census-place-summaries/new-plymouth-district#income

[30] https://www.nzta.govt.nz/assets/resources/maori-road-safety-outcomes-report/maori-road-safety-outcomes-full-report.pdf

Key points on development areas from the proposed district plan:

- Extending existing bus routes to the development areas will extend the catchments of public transport to outlying areas but will increase public transport travel times.
- The general lack of mixed land use zoning near the development areas in the proposed district plan will likely increase the reliance on private vehicle travel to travel further to reach amenities and opportunities.
- Without improvements to public transport and active mode facilities, private vehicles will be the main mode of choice for trips to and from the development areas, thereby creating capacity issues on key routes such as SH3 north of New Plymouth.

Key points on transport costs and impacts on lower-income communities:

- Transport costs, especially those for operating a private vehicle, are a significant and increasing household cost for New Plymouth households.
- The associated transport costs for using private vehicles are significantly higher than those for using public transport. However, private vehicles are still used by most across the district over public transport.
- Across the district, lower-income communities are generally less connected to education and employment opportunities by public transport and active modes. This creates a disproportionate financial burden on these communities from higher reliance on private vehicles located further away form education and employment.
- Lower-income communities and Māori are at a disproportionately higher risk of crash fatalities and injuries from higher reliance on private vehicles.

The following aspects should be explored further to develop a better understanding of the causes and impacts of problem 2:

- Limiting factors of New Plymouth City's linear and low-density form on access to key services.
- Enabling factors of New Plymouth City's linear form for high-movement public transport corridors.
- Constraining factors of New Plymouth City's linear form and topography on active mode uptake and congestion.
- Accessibility of schools across the district.

4.3 Problem 3

The network is configured to prioritise private vehicles and road freight over other modes resulting in issues across the city and towns including severance (particularly for centres on state highways, between communities and the coast, and residential areas with key destinations), and declining amenity (noise, dust, and pollution).

In this context, severance is defined as the separation of people from facilities, services, and social networks they wish to use within their community; changes in comfort and attractiveness of areas; and/or people changing travel patterns due to the physical, traffic flow and/or psychological barriers created by transport corridors and their use.

This problem explores the evidence behind how New Plymouth's transport network has favoured the use of private vehicles which has led to severance and declining amenities for the district's communities. The information collected to inform the evidence base for this problem spans from the One Network Road Classification (ONRC), the current One Network Framework (ONF) classification of the road network through New Plymouth, and operating speeds in the central city. The purpose of the ONF is to align the strategic transport planning at all levels including long term plans, Regional Land Transport Plans (RLTPs) and the NLTP. This is done by combining them all into a common language which is consistent throughout the transportation profession. Therefore, there will be more consistency in conveying and discussing transport projects and plans with the public. Finally, the ONF recognises that streets are not just for keeping people

and goods moving, but they're also places for people to work, live, and enjoy. The ONF process provides an integrated approach to a better balance between the demands of place, such as centres and movement needs of different transport modes.

Providing an integrated transport network that aligns with the proposed land uses in the surrounding area is a desired outcome from this problem, this will allow residents of New Plymouth better access to the public transport system whilst providing a more effective and efficient service.

Problem 3 particularly impacts the Ōakura, Inglewood and New Plymouth City areas between the CBD and surrounding commercial and residential area and access to the coast.

4.3.1 Road network favouring high movement through city and town centres

Poor Alignment with Future Network Movement and Place Priorities

State Highways 44 and 45 create a significant issue of severance through New Plymouth Central. This severance impacts the accessibility and integration between the CBD and surrounding area. To address this problem and provide a safe and convenient system for all transport users, the roading network within New Plymouth Central has undergone a hierarchical change through the implementation of the ONF. The previous classification system One Network Road Classification (ONRC) focussed on vehicle movements and volumes. The aim with the ONF is to provide a network that caters to the needs of all users and minimises the adverse effects of the existing severance through reprioritising the movement function and increasing amenity. Most roads in the New Plymouth Central area have now been reclassified as activity streets under the ONF (see **Figure 4-17)**. This classification signifies that these streets not only facilitate movement but also provide access to retail and services should accommodate all users. These streets do include state highways.

Figure 4-18 and **Figure 4-19** show a similar situation through Inglewood and Ōakura. Both district towns have a state highway through the centre of the town with a strong movement function that constrains active mode accessibility.

The demand for both efficient transportation and vibrant public spaces is recognised, and efforts are made to manage the competing demands within the available road space. However, it is important to acknowledge that the current road infrastructure within New Plymouth Central is insufficient in addressing the issue of severance. The present issues are as follows:

- Most of the roads in the area only have pedestrian crossing facilities at intersections, failing to reflect desired crossing lines and impeding pedestrian mobility.
- The lack of mid-block pedestrian crossings means that vulnerable road users face inconvenience and limited access to and within the area.
- The existing situation prioritises private vehicles for transportation, disadvantaging pedestrians and other vulnerable road users.

To mitigate the effects of severance and promote inclusivity, it is crucial to enhance the pedestrian infrastructure. This includes the implementation of mid-block pedestrian crossing facilities that align with desired crossing lines, ensuring safe and convenient access for pedestrians throughout New Plymouth Central. By equally prioritising the needs of all road users and creating a cohesive transportation system, the adverse impact of severance can be mitigated, fostering a more connected and accessible urban environment.

Figure 4-17: ONRC (top) and ONF (bottom) through New Plymouth City

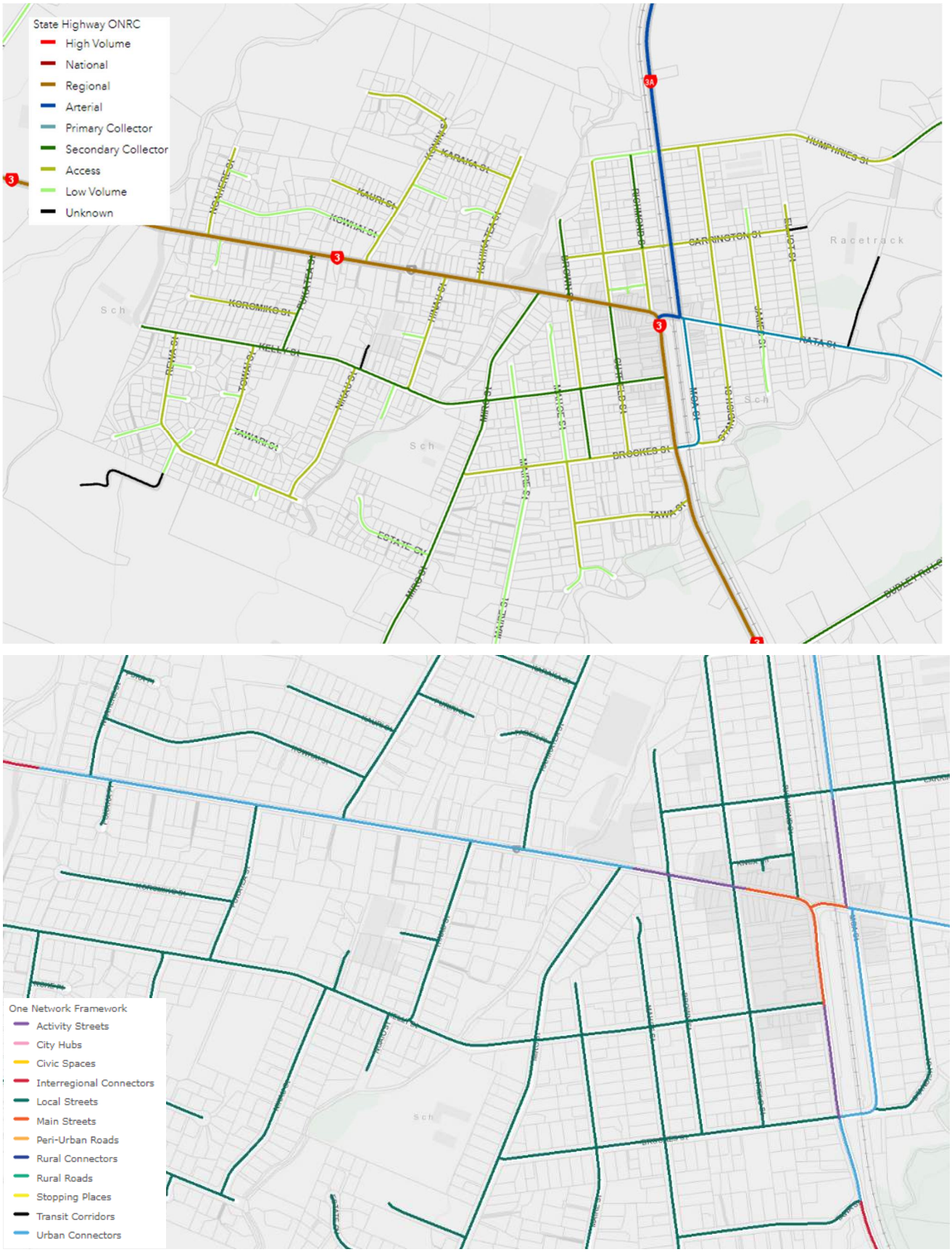


Figure 4-18: ONRC (top) and ONF (bottom) through Inglewood

Figure 4-19: ONRC (top) and ONF (bottom) through Ōakura

Highways causing severance leading to limited active mode opportunities

Running at the core of New Plymouth Central's transportation network are two State Highways, namely SH45 and SH44. These highways span from east to west, and their presence creates challenges for active mode users seeking to reach key destinations in and around the CBD. The highways act as barriers, hindering convenient access to key locations, with this severance is leading to low alternative mode uptake, increasing the number of people driving and creating additional delays for residents.

A primary route for active mode users is along Gover Street from Pukekura Park to the New Plymouth city centre. To reach Devon Street West (a Main Street under the ONF) active mode users are required to cross two lanes of SH45 (Leach Street) traffic with no support from crossing facilities as shown in **Figure 4-20**.

Figure 4-20: SH45 (Leach Street) with no crossing facilities

Another key active mode route along Liardet Street directs people from Pukekura Park, through the city centre to the Coastal Walkway. This 800m long route crosses three state highways (Leach Street, Courtenay Street and St Aubyn Street), and of the nine intersections on this route, four intersections are controlled by traffic signals. The signal phasing on this corridor is prioritised for vehicles on the state highways resulting in long wait times at the traffic signals for pedestrians that encourages some pedestrians to cross outside of the green pedestrian phase in breaks in the traffic flow.

A similar example is on SH45 in Blagdon to access the Countdown supermarket, where pedestrians are required to cross the road with poor crossing facilities. This crossing is facilitated with kerb build-out islands on both sides of SH45, however the crossing distance is still greater than 10m, making it unsafe for vulnerable users two lanes of a state highway to manoeuvre across, as shown below in **Figure 4-21**.

Figure 4-21: Blagdon crossing facilities

Bell Block also experiences severance between the residential area on the northern side of SH3 and the industrial area on the southern side of SH3. Connectivity for active modes is limited to the Mangati shared pathway underpass, sharing SH3 with vehicles or using their own motor vehicle to access this area. This can be seen in **Figure 4-22**. There is a disconnected local road network in Bell Block with a high number of cul-de-sacs, which limits accessibility by other transport modes.

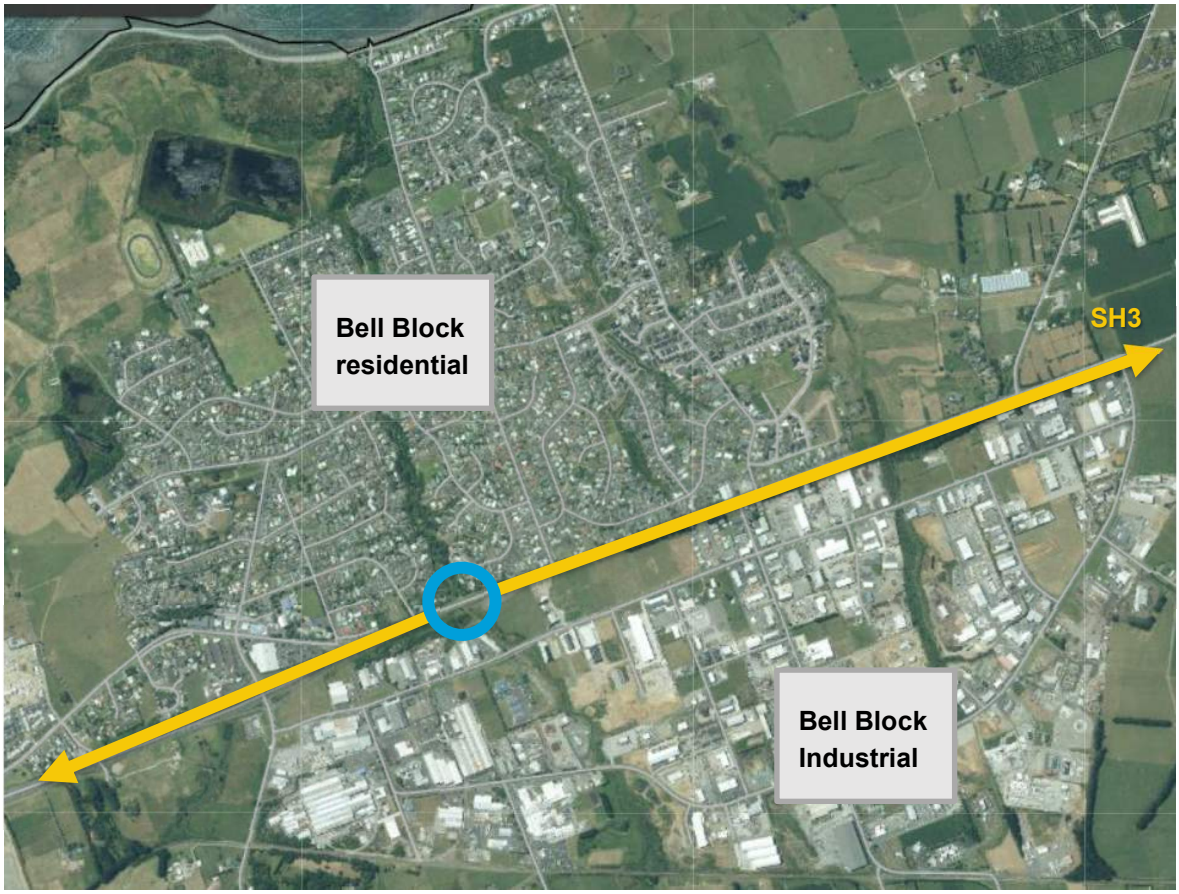


Figure 4-22: Bell Block Severance. Mangati shared pathway SH3 underpass circled in blue.

Moturoa is another area where the state highway system in New Plymouth causes severance. Approximately, 50% of Moturoa is cut off from the Coastal Walkway requiring the people to cross SH44 when using active modes of transportation. The Coastal Walkway experiences high volumes of walking and cycling and is a key connection to the CBD for residents looking to mode shift from private vehicles. A primary desire route which leads down to Ngāmotu Beach (on Bayly Road) in Moturoa is shown below in **Figure 4-23**.

This severance is also present in Inglewood within the New Plymouth District, where SH3 separates the schools in the south of the town from the residential area north of the highway, with limited safe crossing facilities available.

Figure 4-23: Moturoa Suburb Severance

These areas have been highlighted in the Network Operating Framework where active mode users are not serviced very well and contributes to severance in the active mode network:

- The level of service for pedestrians at desire lines is poor when they align with the State Highways that travel through new Plymouth.
- Pedestrians are left without crossing facilities creating a large gap in the network.
- The cycling network level of service in these key spots throughout New Plymouth is also poor. Although three of the four routes have cycle lanes these are not separated and are conflict with parked vehicles.
- Such low level of separation in the cycle network creates barriers for active mode users with a network which is incomplete.

Due to the severance caused by the State Highways throughout New Plymouth district's transport network there is a significant percentage of people who prefer to use their own private vehicle rather than active modes. This is deemed to be more efficient and a safer mode of transportation. The gaps in the network caused by the State Highways increase the personal risk to the active mode users and the duration of their commute. The lack of provision for pedestrians and cyclists creates gaps in the useable network and increases safety risks for these users.

Mean operating speeds through the city

Figure 4-24 shows the mean operating speeds throughout New Plymouth, highlighting that some key routes through the city centre have operating speeds above 30km/h. As shown in **Figure 4-25,** the severity of a collision between a vehicle and an active mode user increases exponentially as vehicle speeds exceed 30 km/h. Therefore, when combined with the limited crossing facilities, several routes through the central city of New Plymouth put active mode users at increased risk of fatality and serious injury.

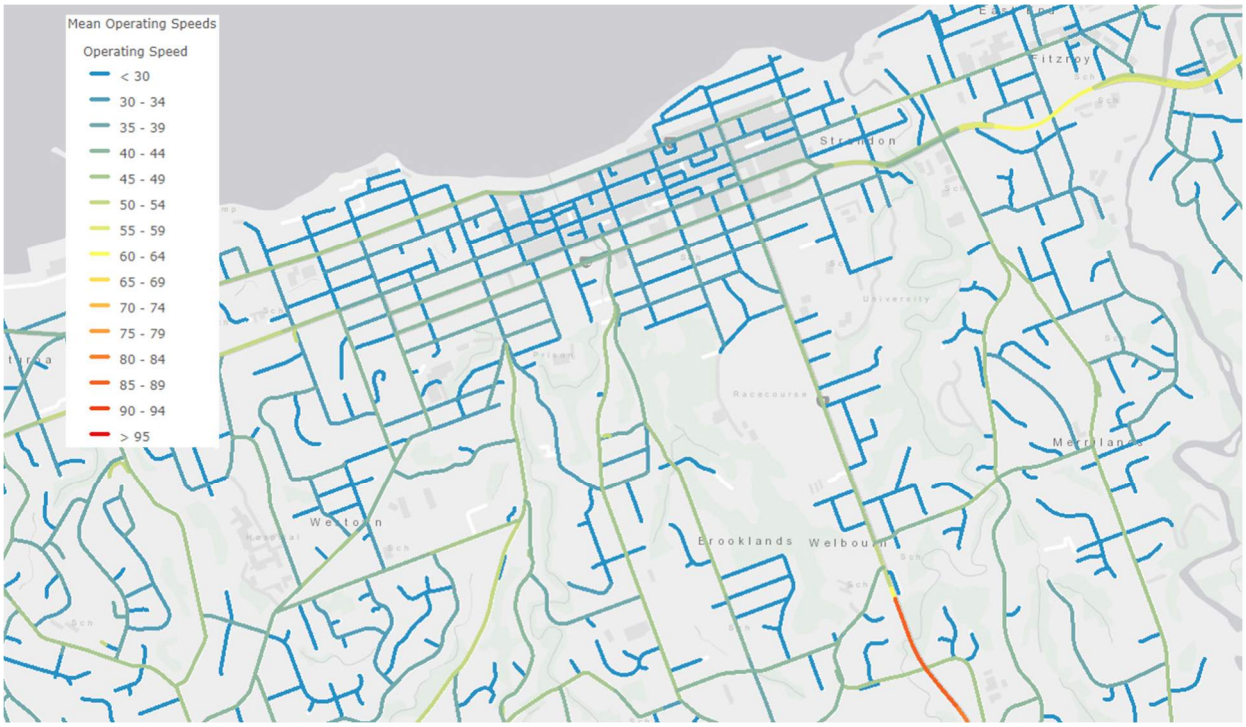


Figure 4-24: Mean operating speeds through New Plymouth

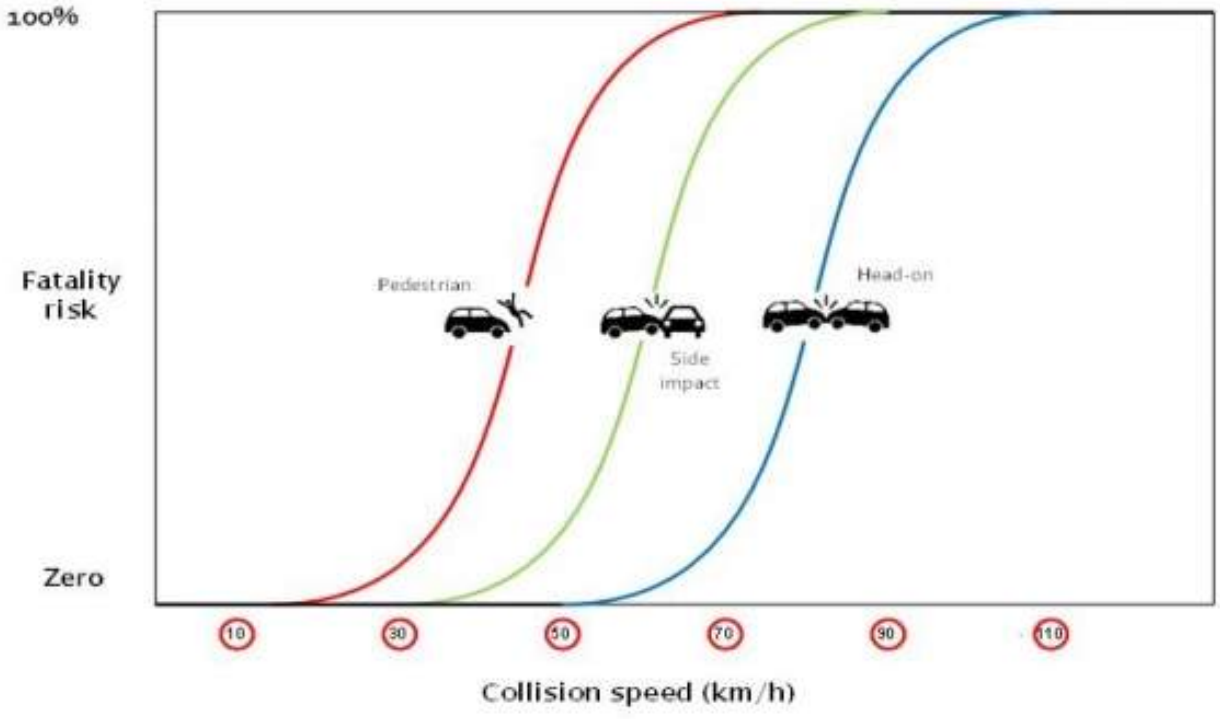


Figure 4-25: Survivable speeds graph[31]

[31] https://archive.gw.govt.nz/survivable-speeds/

4.3.2 Increased vehicle movements increase severance

Increasing AADT

Table 4-6 and **Figure 4-26** shows the Annual Average Daily Traffic (AADT) at key locations along three State Highways in and around New Plymouth between 2017 and 2021. This data was obtained from the NZTA data base. Vehicle volumes are shown to steadily increase except for the 2020, which was likely due to the impact of COVID-19 lockdowns. This indicates that there are increasing vehicle volumes on key routes in and around New Plymouth, leading to increased congestion and a lower level of services for pedestrians and cyclists.

Table 4-6: AADT across SH network in New Plymouth Area[32]

Geographical location	Location	2017	2018	2019	2020	2021
New Plymouth	Molesworth Street/SH44	13,151	13,794	13,794	12,883	14,321
New Plymouth	Seaview Road/SH45	14,620	14,891	15,390	14,414	15,872
New Plymouth	SH3 at Paynters Avenue	13,051	13,936	14,815	13,315	14,865
Ōakura	Hurford Road/SH45	7,653	7,914	8,317	7,788	8,503
Inglewood	Rata Street/SH45	11,738	12,182	12,619	11,337	13,673
Waitara	Devon Road/East of SH3A	15,504	16,229	16,583	15,087	16,918

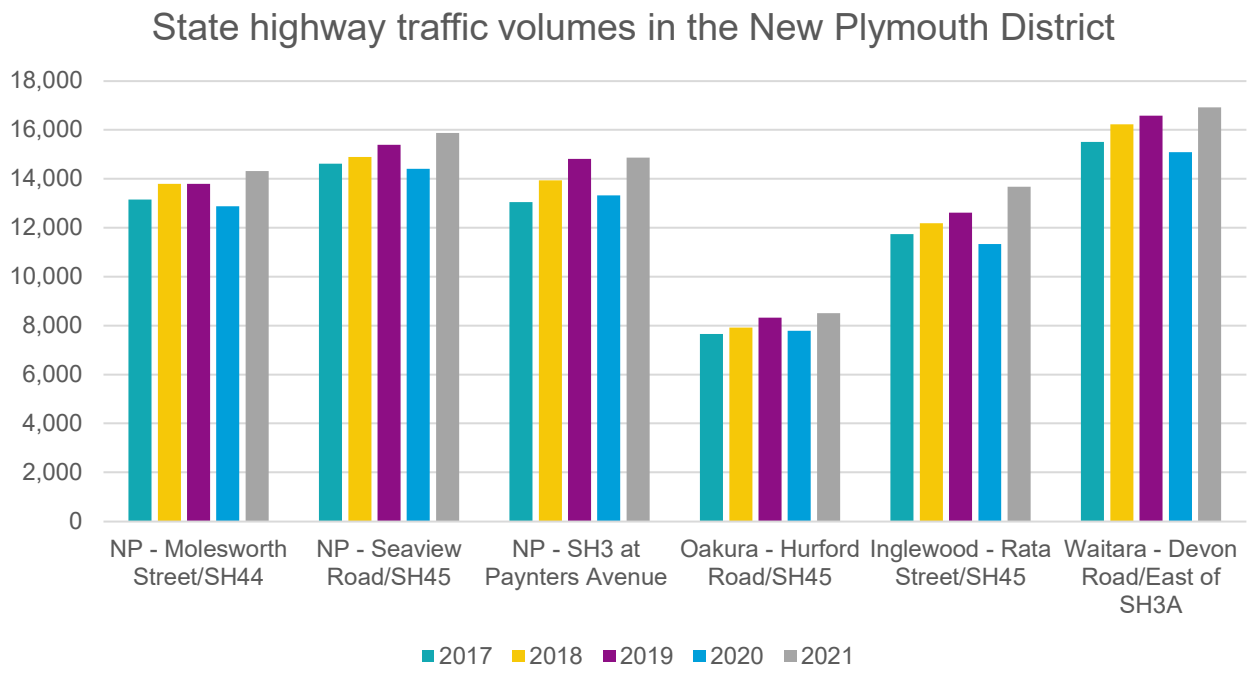


Figure 4-26: State highway traffic volumes in the New Plymouth District

[32] https://maphub.nzta.govt.nz/public/?appid=31305d4c1c794c1188a87da0d3e85d04

Heavy Vehicle movements

Figure 4-27 shows there are approximately 1,200 heavy vehicles movements daily through the centre of New Plymouth. These are gradually increasing and high heavy vehicle volumes on state highways through New Plymouth contribute to increasing severance between the coast and surrounding areas of New Plymouth. Additionally, these heavy vehicles are likely to be causing vibration disturbance for nearby buildings.

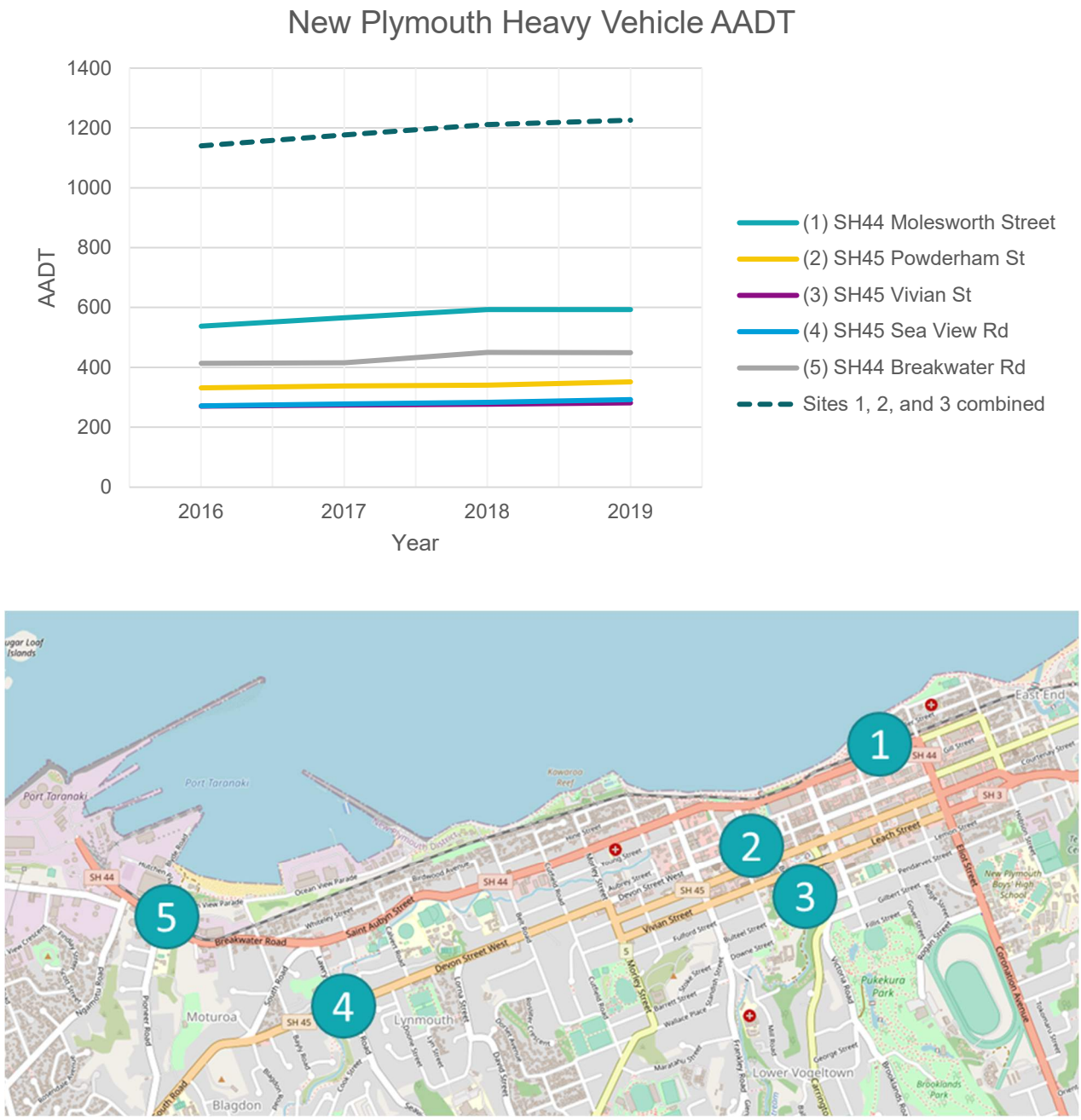


Figure 4-27: Daily heavy vehicle volumes in New Plymouth[33]

[33] https://www.nzta.govt.nz/resources/state-highway-traffic-volumes/

Port growth

The projected logging truck movement on the transport network in New Plymouth is expected to grow in the short term, then decrease over the long-term as can be seen from **Figure 4-28**. Increased heavy vehicles will cause severance and declining amenity on the main streets of Inglewood and Egmont Village and New Plymouth's waterfront.

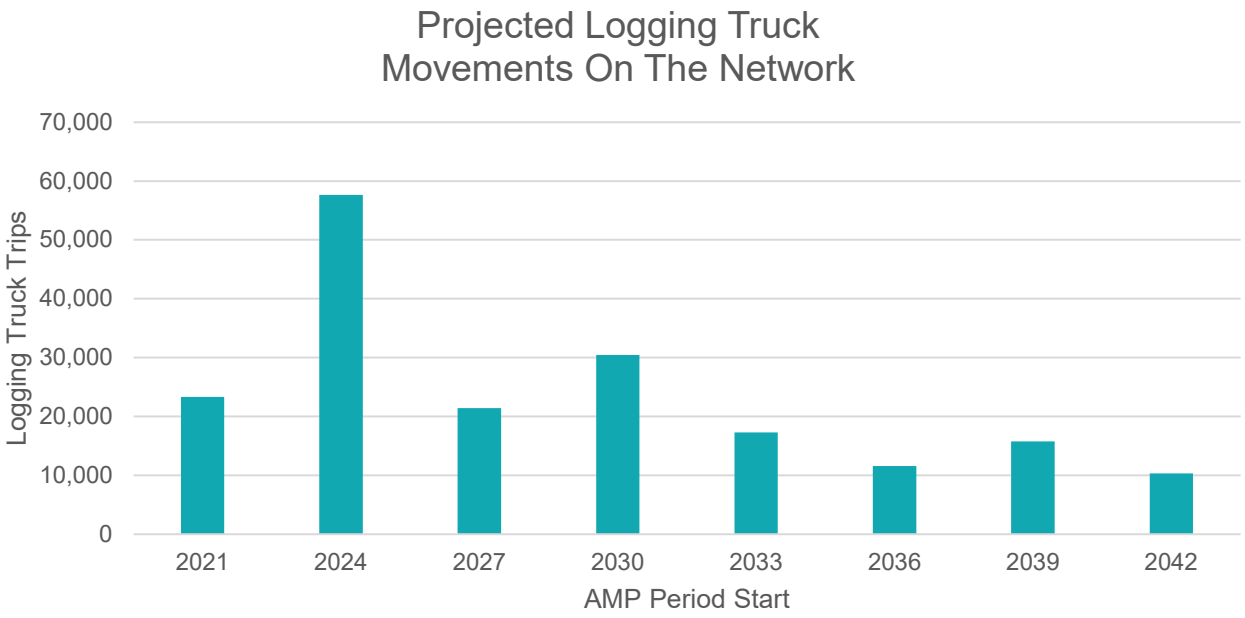


Figure 4-28: Projected Logging Truck Movements from the Port of Taranaki[34]

Level of Service of other modes

With reference to the New Plymouth Network Operating Framework (NOF), the inadequate level of service for transportation modes, excluding private vehicles, raises serious concerns as it directly contributes to the rise in traffic delays. Several gaps in the transportation network exacerbate the problem:

- Pedestrians face challenges due to the absence of crossing facilities along their desired paths.
- Cyclists encounter discontinuities in the cycle network throughout the district.
- Public transport, particularly in the CBD, can be unreliable because multiple local streets in the CBD are congested by light vehicles, attracted by cheap on street parking and lack of bus priority at intersections.

These network gaps severely impact the level of service for alternative transportation options. Consequently, there has been a significant increase in the number of vehicles on the road, further amplifying the risk of crashes.

[34] https://www.npdc.govt.nz/media/a2hfxvf2/2021-2031-transportation-asset-management-plan.pdf Page 287

4.3.3 Problem 3 summary points and evidence gaps

Poor Alignment with Future Network Movement and Place Priorities

- The ONF identifies several Activity Streets around the New Plymouth city centre (including lengths of SH44 and SH45). Significant changes are required to some of these streets to facilitate heavy traffic and through traffic around the CBD while enabling access by walking, cycling and public transport. Highways causing severance leading to low alternative mode uptake.
- In areas around the New Plymouth district the highways often sever the desire lines of active mode users, making access to shopping or recreational areas difficult where pedestrian crossing facilities are not provided.
- In Bell Block the highway severs the residential area to the north and industrial areas to the south. Currently there is just one active mode facility across the highway.

Mean operating speeds through the city

- Mean operating speeds on key active mode routes are above 30km/h. When this speed is combined with the limited crossing facilities, several routes through the central city of New Plymouth put active mode users at increased risk of fatality and serious injury, particularly traveling to New Plymouth CBD and in local towns and centres.

Increasing AADT and heavy vehicle movements

- Vehicle volumes are shown to be steadily increasing on state highways across the district, making these transport routes less attractive to people traveling by active modes.
- The New Plymouth Network Operating Framework identified an inadequate level of service for active modes and for access to public transport, and this level of service continues to drop as traffic volumes increase.

The following aspects should be explored further to develop a better understanding of the causes and impacts of problem 3:

- Modelling data for level of service for public transport, active modes and general traffic and freight.
- Noise pollution statistics and pollution effects on health.
- Vibration from vehicle movement statistics.

4.4 Problem 4

The current active mode transport networks (walking, cycling, and micro-mobility) are fragmented and have unsafe connections resulting in safety issues, poor perception of the network and low active mode uptake.

This issue relates to safety, how the community regard New Plymouth and surrounding towns and villages as desirable places to live and work, and the effects that a fragmented active mode network has on both. The Crash Analysis System (CAS) database, cycle network maps, public feedback data and examples of unsafe cycle infrastructure have been used to investigate the problem statement. Problem four is prevalent across the entirety of the New Plymouth District.

4.4.1 Cycle network gaps

The primary cycle network in New Plymouth exhibits significant operating gaps where cycling facilities are lacking. The current state of the cycle network in the region is relatively underdeveloped and incomplete. By focusing resources and efforts on improving and expanding cycling facilities, New Plymouth can enhance the cycling experience, encourage active transportation, and promote a more sustainable and accessible transportation system.

Abley and ViaStrada completed a Cycle Network Planning Report for NPDC in October 2019 that proposed routes to implement cycling infrastructure (see **Figure 4-29**). The proposed cycle routes, shown by the dotted lines, highlight some of the gaps in the cycle network as it stands today which could provide essential links for active mode trips.

Interested but concerned routes are intended to be separated from traffic on shared paths or separated cycleways, or routes that feature slow speed neighbourhood greenways with low traffic volumes. These routes are intended to cater for a large group of users who are interested in cycling but do not view the existing infrastructure as safe[35], and so they represent a significant opportunity to improve cycling mode share if implemented. Many of these routes would close network gaps, connecting residential areas of New Plymouth to the city centre where trip distances are typically less than 5km. Currently, this standard of facility is provided for only some residents along the Coastal Walkway,

The enthused and confident routes are intended to cater for a generally smaller group of cyclists who are comfortable with limited separation from vehicles. These routes are proposed to connect New Plymouth residential areas via the southern valleys without having to travel through the city centre. This is currently not possible along a continuous cycle facility and is likely to encourage cycling as an option for trips that do not start or finish in the city centre.

These gaps are not just present with New Plymouth, as **Figure 4-29** indicates gaps in both Bell Block and Waitara, and **Figure 4-30** indicates gaps in Inglewood.

[35] https://www.nzta.govt.nz/walking-cycling-and-public-transport/cycling/cycling-standards-and-guidance/cycling-network-guidance/cycle-network-and-route-planning-guide/principles/people-who-cycle/#interested

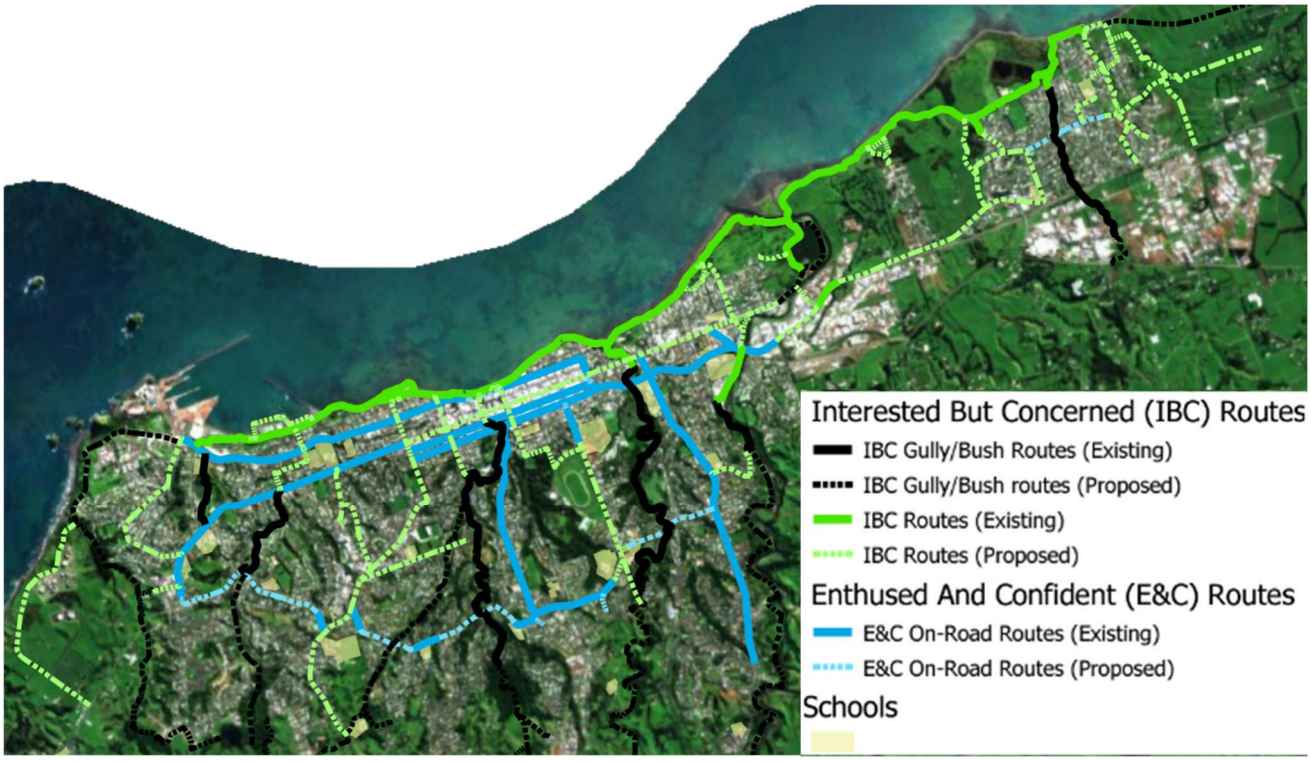


Figure 4-29: Gaps in New Plymouth's cycle-network[36]

Figure 4-30: Gaps in Inglewood's cycle network

[36] Cycle Network Review – Urban New Plymouth (inc Bell Block), Waitara, Inglewood (Viastrada and Abley, November 2019)

4.4.2 Poor Level of Service for walking and cycling

In 2020 Abley and Viastrada prepared a Network Operating Framework (NOF) for NPDC. The purpose of the framework is "*to identify how the network should be managed, including any performance gap(s) between the existing network and the future aspirational state of the transport network. The framework also allows for the identification of interventions or activities that might be required to reduce or remove performance gaps*."

The outcomes for pedestrians and cyclists are highlighted below:

"Many pedestrian operating gaps are observed in and around the CBD, due to higher levels of pedestrian activity and higher pedestrian priority in this area of high place significance. Pedestrian operating gaps are also prominent along busy roads where crossing facilities are not provided. When excluding the relative efficiency factor, the scale of pedestrian performance gaps across the network expands. The focus of investment in the pedestrian network should be on providing crossings on busy roads in areas of high activity. There are also many safety issues with existing crossings that have been identified and should be addressed. In addition to the identified pedestrian operating gaps, it is important that all streets in urban areas provide a footpath that complies with minimum standards to ensure a basic level of access is provided.

Generally cycling operating gaps are prominent along the identified primary cycle network where facilities are not provided. The New Plymouth cycle network is relatively immature, the focus of investment in cycling should be on completing the identified network."

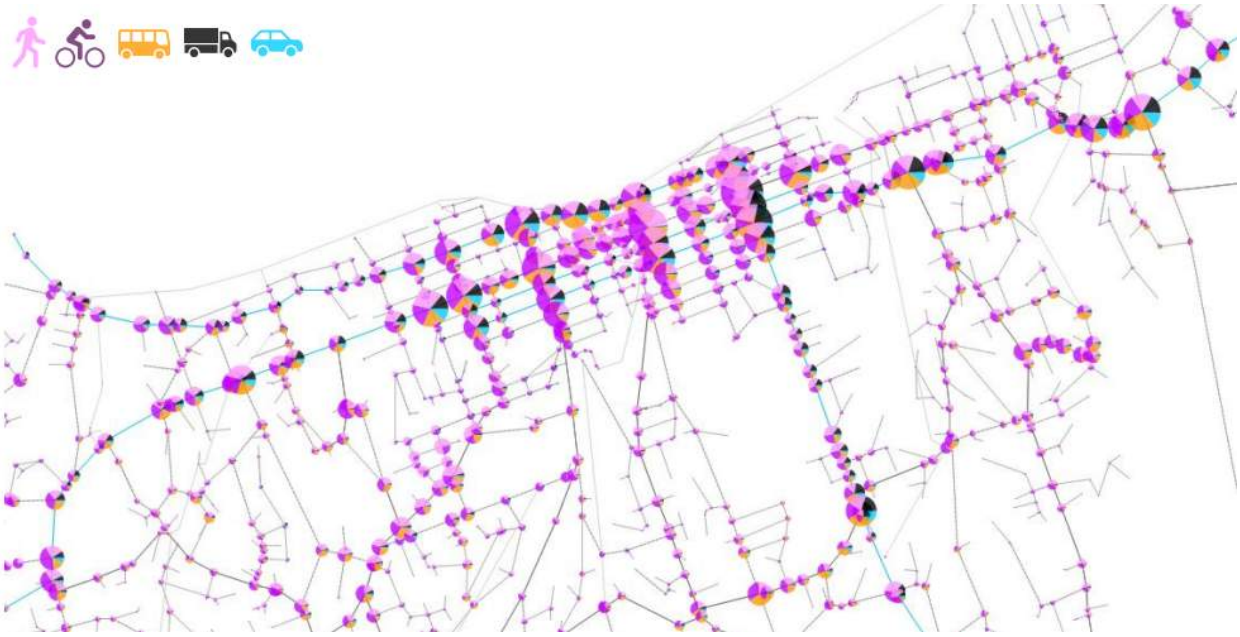


Figure 4-31: AM peak operating gaps (Relative Efficiency Factor excluded) – central New Plymouth

4.4.3 Unsafe existing cycle routes

Although New Plymouth has some established active mode routes across the district, there are some fragments of routes which pose a safety concern to active mode users. These perceived risks within the network can create both an actual and perceived safety risk with using the network which can in turn deter active mode uptake in the district. **Figure 4-32** shows a cycle-lane entering a major intersection which operates as a part of the State Highway Network. Although there is a cycle-lane leading up to the intersection, the cycle lane stops before the intersection, and cyclists enter the intersection with no protection in the road layout. This means cyclist must navigate vehicles to travel through the intersection, resulting in a safety risk for cyclists.

Figure 4-32: Cycle lane entering intersection of Devon St West (SH45) and Morley Street

Another example of an unsafe section of the active mode network in New Plymouth can be seen in **Figure 4-33**. The cycle lane can be seen to narrow through the curve of the road, with indications that vehicles are regularly tracking over the cycleway as the green marking is faded. This causes concern for the safety of cyclists as there is limited separation between them and passing vehicles.

Figure 4-33: Narrow cycleway with fading markings at intersection of Tukapa St and Morley St

Lastly, **Figure 4-34** displays a narrow cycle lane where the cycle symbol does not fit into the actual cycle lane and there is no protection from cars using the live lane aside from the edge line. This creates a safety risk as cyclists are not protected and can easily be struck by passing traffic or vehicle doors.

Figure 4-34: Narrow cycle lane at Morley Street

4.4.4 Poor existing pedestrian safety and accessibility

In line with the previous problem statement 3, the issue of limited accessibility for pedestrians throughout New Plymouth poses a significant challenge. The primary factor contributing to this problem is the severance caused by the State Highways that pass through the heart of New Plymouth Central. Numerous popular walking routes in the city lack appropriate crossing facilities, thereby exposing pedestrians to greater risks of potential conflicts with motor vehicles. However, by implementing adequate crossing facilities on urban roads, pedestrian safety can be enhanced and provided with improved access to a broader range of areas within the New Plymouth District.

The state highway network forms the “main street” in Ōakura, Ōkato and Inglewood, and as a result carry high volumes of both light and heavy vehicles through the commercial areas of these local town centres. These state highways can be difficult for pedestrians to cross and have limited crossing facilities, as shown in **Figure 4-35** to **Figure 4-37.**

Figure 4-35: SH45 in the Ōakura town centre

Figure 4-36: SH45 in the Ōkato town centre

Figure 4-37: SH3 in the Inglewood town centre

4.4.5 Active Mode Crashes

Across the past five-year period (2018-2022) there have been a total of 184 active modes crashes within the New Plymouth District as can be seen from **Table 4-7**. Out of all the crashes there have been two fatalities in the past five years involving an active mode user. Additionally, there are 39 crashes which have resulted in serious injury from the impact of the crash. These numbers highlight the safety issues experienced because of the fragmented network for active modes and can explain the hesitation with the uptake of active modes in the district.

Table 4-7: Active Mode crashes within the New Plymouth District

Year	Fatal	Serious Injury	Minor Injury	Non-injury	Total
2018	0	4	23	6	**33**
2019	1	13	28	5	**47**
2020	0	9	22	3	**34**
2021	0	5	30	7	**42**

Year	Fatal	Serious Injury	Minor Injury	Non-injury	Total
2022	1	8	16	2	**27**
Total	**2**	**39**	**119**	**23**	**184**

Figure 4-38 shows an approximate spatial distribution of the active mode crashes across the New Plymouth District over the past five years. The evidence shows that active mode crashes are prevalent across the entire district, with New Plymouth Central being the most common crash location. This is likely to be a contributing factor to slow active mode uptake.

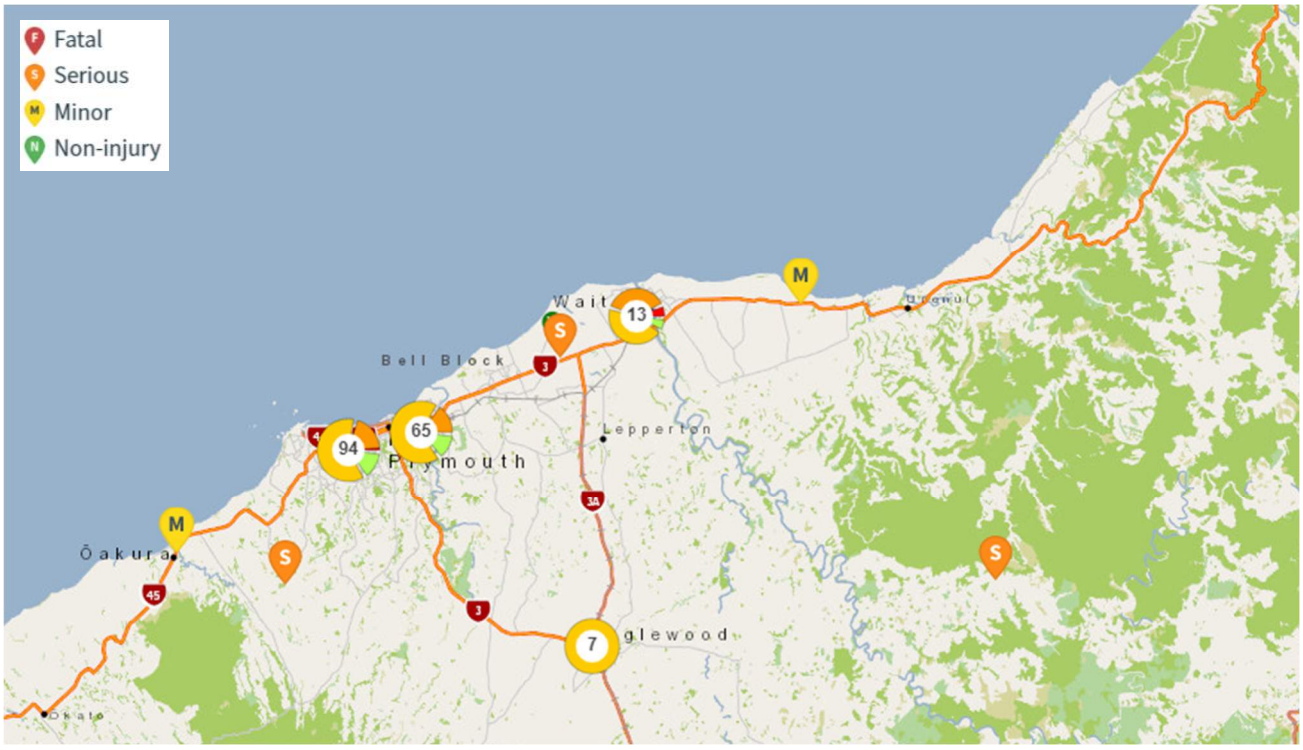


Figure 4-38: Map of active mode crashes over the past five years (2018-2022)

Out of all the days of the week, Tuesday shows the highest amount of active modes crashes over the past five years as can be seen from **Figure 4-39**. The least common days active mode crashes Saturday and Sunday. This suggests that most crashes are likely to be during peoples commute.

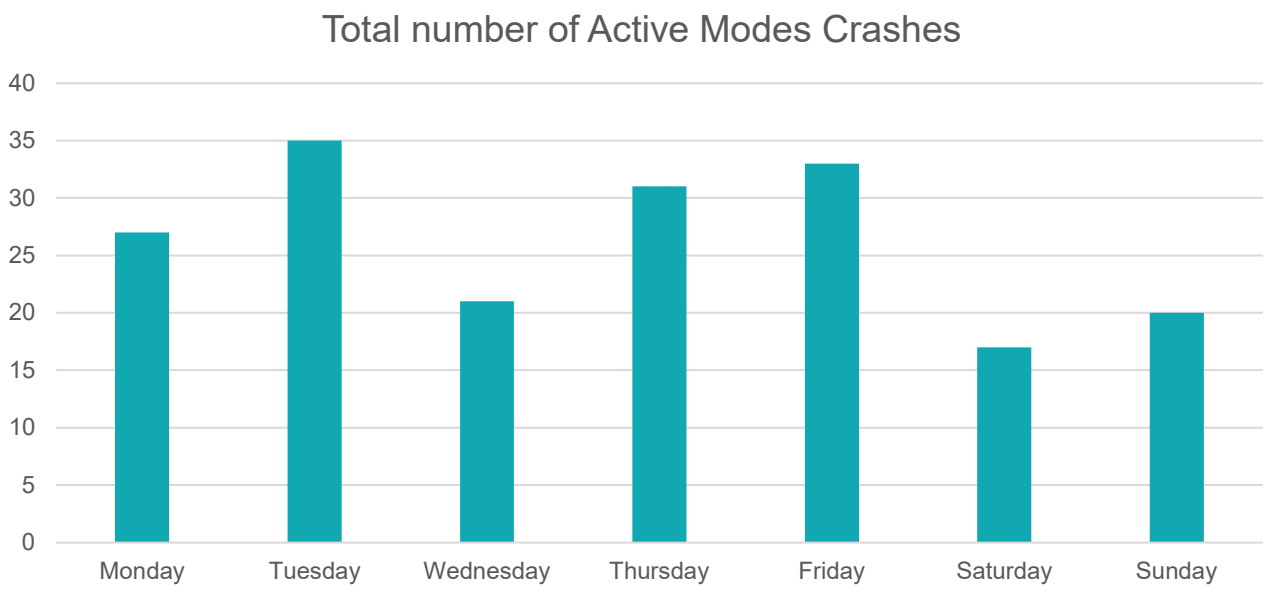


Figure 4-39: Active mode crashes across the week

The most active mode crashes appeared to happen on peak times for travel, 6am-9am and 4pm-6pm, as can be seen from **Figure 4-40**. This supports the argument above and shows that links to key destinations such as school and work are not safe.

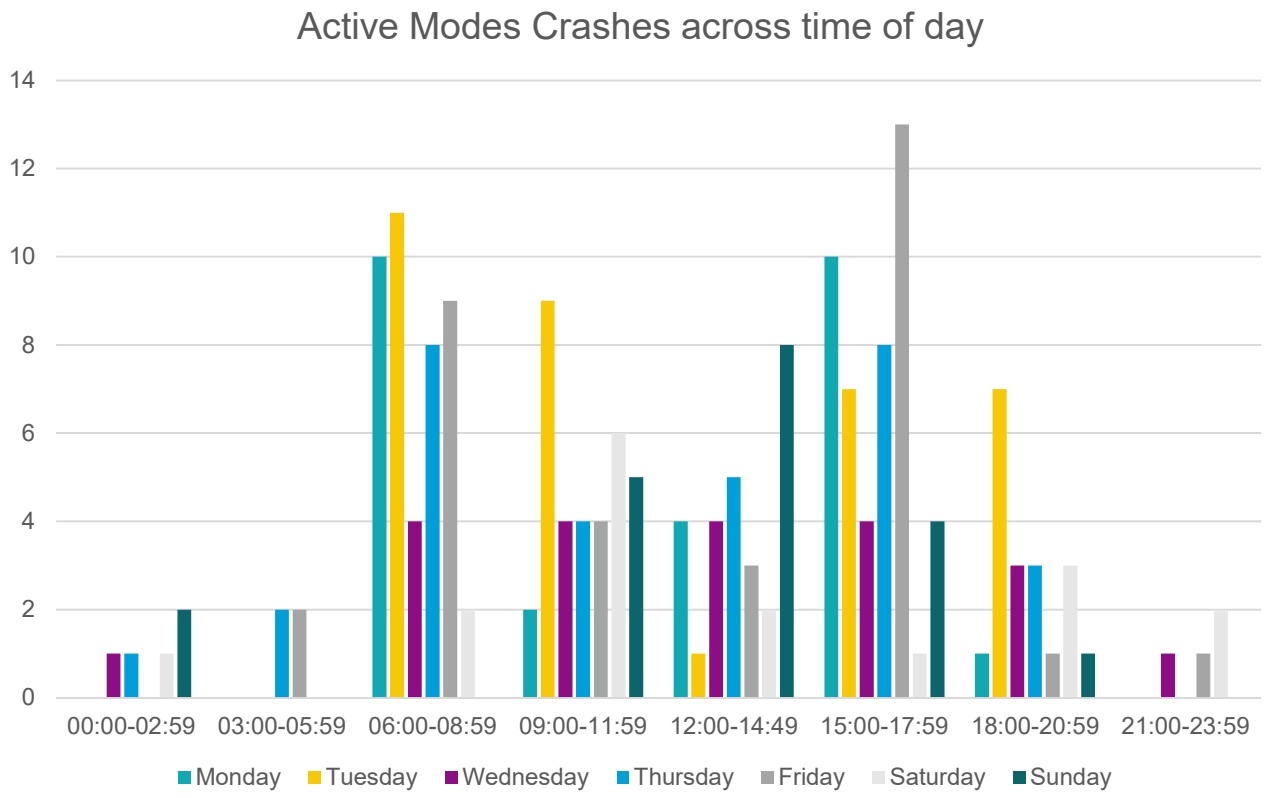


Figure 4-40: Active mode crashes across times of day

4.4.6 Cycle safety

The Community at Risk register from NZTA shows that New Plymouth District were ranked number 3 for crashes involving cyclist across the entirety of New Zealand in the year 2022.[37] This shows that the makeup of the roading network in New Plymouth is in favour of private vehicles and has minimal protection for cyclists, putting them at risk.

4.4.7 Higher active mode user counts on high standard facilities

Figure 4-41 shows annual walking and cycling counts of the Coastal Walkway along the coast in New Plymouth.

- The table shows relatively stable numbers of users until the opening of the walkway extension in 2015 where numbers show a rapid increase.
- This shows that when the infrastructure for active modes is well-designed and safe the demand is there from the community.
- It can also show that there is engagement for walking and cycling where facilities are safe and away from vehicles.

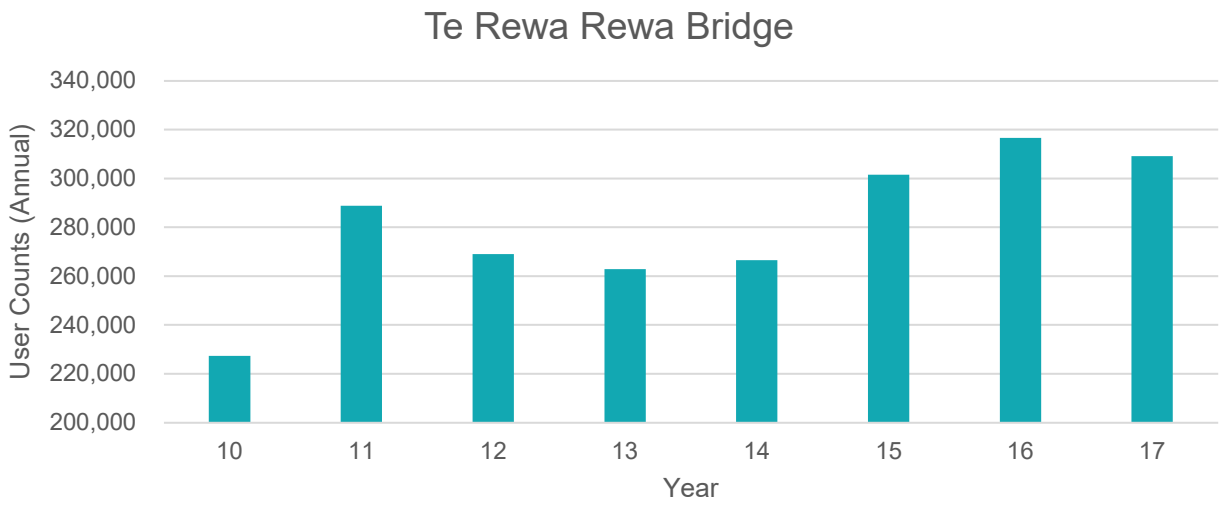


Figure 4-41: Walking and cycling counts

Since mid-2021 a continual count program has been undertaken by NPDC at 21 sites in the district. This data is recorded daily in 15-minute intervals making season changes, the impact of hosted events or changes in weather easy to track.

This data shows that:

- The number of people traveling along the coastal walkway continues to grow, with peak numbers at the Wind Wand (close to the New Plymouth city centre) reaching 614,700 people in 2022 (the most recent full year of data) and at Te Rewa Rewa Bridge (on the eastern side if New Plymouth at the Waiwhakaiho river mouth).
- The Wind Wand section of New Plymouth's Coastal Walkway sees a diverse group of cyclists using it for both commuting and recreation throughout the week. However, there is a notable surge in cyclist activity during the weekend mornings, with approximately 216 individuals making use of this path between 8 am

[37] https://www.nzta.govt.nz/assets/resources/communities-at-risk-register/docs/communities-at-risk-register-2022.pdf

and 9 am. On weekdays during the same time frame, we observe an average of 130 cyclists enjoying the pathway during the month of March 2023. Therefore, recreational usage of the walkway is nearly double the amount of weekday commuters.

New Plymouth also undertakes a yearly active mode cordon count and the results from this survey also show high volumes in areas which have good facilities and connections, especially along the Coastal Walkway. However, this is not the case throughout the rest of district as the mode split figures drop significantly in other areas throughout New Plymouth. On the Coastal Walkway by the Wind Wand, there are typically around 1,000 pedestrians on a typical weekday and 700 cyclists, with a slight increase in both over the weekend.

By comparison, there are typically 134 cyclists a day using SH3 (Coronation Avenue adjacent to Cracroft Street) during the week, and 50 cyclists on SH45 (Devon Street West adjacent to Lorna Street). In addition, for those cyclists not on the coastal walkway, in the 2023 cordon counts 34% of cyclists were on the footpath. This supports the idea that people in New Plymouth are willing to cycle, but the existing on-road facilities with little separation are not desirable.

The census data from 2018 illustrates that New Plymouth's active mode split is less than the average of the rest of New Zealand. As it can be seen below in **Table 4-8** all walking and cycling numbers are below New Zealand averages to get to work and education except for cycling to education where New Plymouth is slightly above the national average.

Table 4-8: Active Mode Split (Census 2018)

Mode	Education		Work	
	New Plymouth	New Zealand	New Plymouth	New Zealand
Jogging / Walking	17.6%	20.5%	5.1%	3.6%
Cycling	4.4%	5.2%	1.7%	2%

4.4.8 Resident Perception Survey results

Every year NPDC conducts a community survey to further understand the perception of the population on different themes related to services and facilities within the New Plymouth District. Recent results show a decrease in satisfaction of the quality and safety of footpaths with a 77% satisfaction rating in 2021 and an 82% satisfaction rating in 2020 as can be seen in **Figure 4-42**. The issues identified by respondents include uneven and broken pavement, the length and quality of footpaths, and safety. These sorts of issues with the footpaths encourage people to not use them. Instead of taking up active modes using the footpath network residents will favour private vehicles instead, leading to a significant loss of amenity. Additionally, a lack of accessibility will occur due to the poor footpath condition, resulting in the need to use a private vehicle, restricting residents without vehicles.

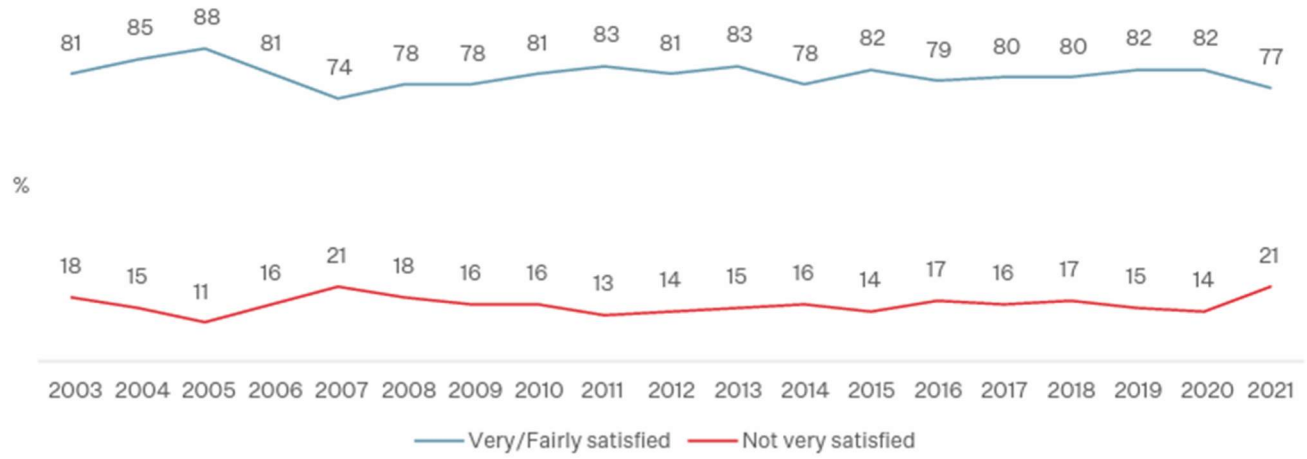


Figure 4-42: Satisfaction and dis-satisfaction of footpaths in New Plymouth[38]

The people that are very to fairly satisfied and not very satisfied with the cycle network has both increased since 2020. **Figure 4-43** shows that satisfaction increased by 2% in 2021 and dissatisfaction increased by 6%. The issues present along the cycle network identified by respondents include poor quality, lack of space dedicated to cycle lanes, and safety. Residents' perception of the cycle network is becoming worse as a result of the severance between suburbs throughout New Plymouth that is worsening. A poorly developed cycling network within a city can inadvertently promote the use of private vehicles among residents, hindering their ability to access various destinations. This discourages individuals without vehicles from freely navigating the city, thereby limiting their social connections and overall mobility. The heavy reliance on private vehicles also reduces the adoption of active modes of transportation, such as walking or cycling, which would be more prevalent if the cycling network were adequately established. By enhancing the quality of the cycling network, the level of amenity within the community can be significantly elevated, providing improved accessibility and promoting healthier and more sustainable modes of transportation.

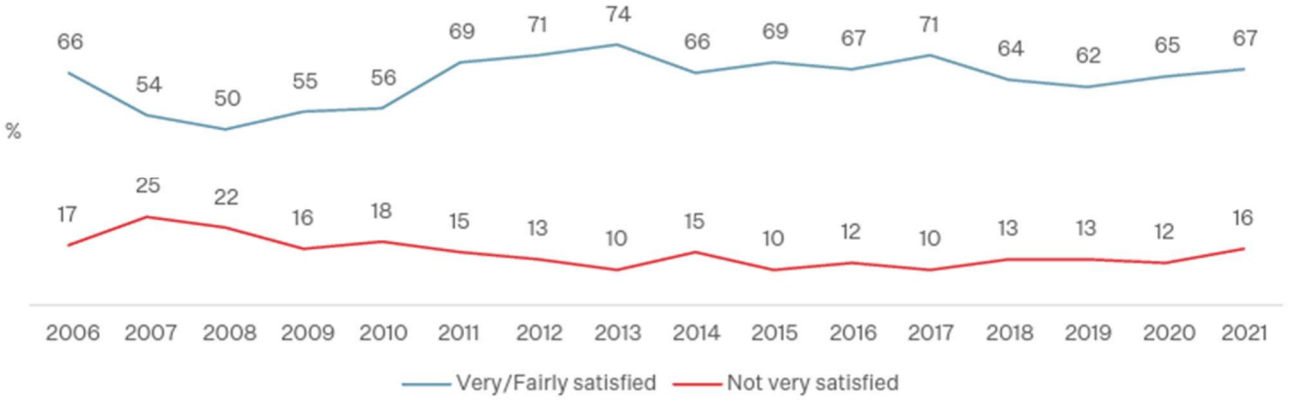


Figure 4-43: Satisfaction and dis-satisfaction of the cycle network in New Plymouth

[38] www.npdc.govt.nz/media/0l1piwpq/npdc-community-survey-2021.pdf

4.4.9 Public perception of active modes

Through the community consultation carried out by TRC for the Future of Transport report, it was found that the existing active mode network throughout the New Plymouth District is perceived as unsafe by respondents. This is one of the reasons that many residents are opting to use private vehicles for transportation throughout the district. However, higher usage of private vehicles increases the risk of crashes, meaning the local road network is unsafe for all users.

The reasons respondents viewed the existing active mode network unsafe related mainly to vehicle speeds and lack of dedicated active mode infrastructure. Respondents identified and prioritised key improvements needed to make walking and cycling feel safer across the district in the following order:

1. Dedicated separated cycle lanes and shared paths.
2. More/safer road crossings.
3. Reduced operating speeds.
4. Education programs.
5. Improving the infrastructure dedicated to walking and cycling.

Respondents also prioritised infrastructure required to improve active transport options in the following order:

1. Cycleways and walkways that link Taranaki communities.
2. More dedicated cycleways and walkways throughout New Plymouth.
3. More separate cycleways on the roads.

Through the implementation of these recommendations the New Plymouth active mode network will become less fragmentated and create continuous cycling and walking pathways. This will encourage a mode shift to active modes, ensure that the network is safer, and, most importantly, improve residents' perception of safety.

4.4.10 Problem 4 summary points and evidence gaps

Cycle network gaps

- The current network has significant gaps where cycling facilities are lacking. By improving and expanding cycling facilities, New Plymouth can enhance the cycling experience, and encourage greater uptake in active transport modes in its centres.

Poor level of service for walking and cycling

- The NOF identified many pedestrian operating gaps, in particular, in and around the CBD, due to higher levels of pedestrian activity and higher pedestrian priority in this area of high place significance. Pedestrian operating gaps are also prominent along busy roads where crossing facilities are not provided at mid-block areas, or long signal cycle phasing at main intersections.
- The NOF also identified that cycling operating gaps are prominent along the identified primary cycle network where facilities are not provided. The New Plymouth cycle network is relatively limited, the focus of investment in cycling should be on completing the identified network.

Unsafe existing cycling routes

- Existing routes are fragmented, with substandard facilities (narrow lanes and lanes that terminate on approaches to intersections) resulting in actual and perceived safety concerns. These concerns are supported by the active mode crash results for the past five years.

Poor existing pedestrian safety and accessibility

- There are limited pedestrian crossing facilities across the highways through the smaller townships in the district. This results in pedestrians crossing with vehicle speeds greater than the recommended safe system vehicle speed of 30km/hr.

Active mode crashes

- Trends show that active mode crashes occur most often during the working week (Monday to Friday) in morning and evening commuting periods.
- The Community at risk register from NZTA shows that New Plymouth District were ranked number 3 for crashes involving cyclist across the entirety of New Zealand in the year 2022.

Higher user counts on good facilities

- Data collected by NPDC shows that pedestrian and cyclist volumes continue to grow on the good active mode facilities in the district, such as the Coastal Walkway. Outside of this facility the number of people traveling by active modes is greatly reduced.

Resident perception survey results

- The district wide yearly perception survey identified a decrease in satisfaction of footpaths and the cycle network in the most recent survey.
- The public perception survey results are further supported by the TRC Future of Transport community engagement, which identified and prioritised key improvements needed to make walking and cycling feel safer across the district. These included dedicated separated cycle lanes and shared paths, more and safer road crossings, reduced operating speeds, education programs and improving the infrastructure dedicated to walking and cycling.

The following aspects should be explored further to develop a better understanding of the causes and impacts of problem 3:

- Evidence of active mode crashes beyond the NZTA Crash Analysis System due to under-reporting.

4.5 Transport network contributions to emissions

Aspects of all four problems contribute to increasing carbon emissions. These aspects relate to increased travel by private vehicles relative to other modes, resulting in a higher number of emissions for travel across the district. The aspects include:

- The public transport network is not competitive with private vehicle travel or conveniently aligned with many typical movements, leading to a preference for travel by private vehicles across the district.
- Low density residential developments that make access by public transport, walking and cycling difficult, leading to a high dependency on private vehicles across the district.
- The network is configured to prioritise private vehicles and road freight over other modes, leading to higher usage of private vehicles.
- The current active mode transport networks are fragmented and unsafe, leading to low active mode uptake relative to private vehicles due to high private vehicle usage across the district.

4.5.1 Carbon Emissions

Figure 4-44 displays the daily carbon emissions across the New Plymouth District transport network. The figure shows high emissions along key routes in the network, particularly the state highways. This is likely to be a result of high private vehicle usage as other transport modes, such as public transport, are not competitive. Being exposed to high levels of carbon dioxide can have harmful effects on people's health. The high emissions from transport in the New Plymouth district is at odds with the strategic direction of the GPS and the ERP. Furthermore, the relationship between high carbon emissions and negative climate and health outcomes is well established.

NZTA has identified that land transportation is the primary contributor to nitrogen dioxide gases (NO_2) in New Zealand's urban centres and a portion of the contribution to particulate matter. Land transportation also increases the volume of dust particles in the air from unsealed and sealed roads, brakes, and tyres. These particles can create respiratory and cardiovascular issues, which can lead to lung problems, reduced life expectancy, and death.

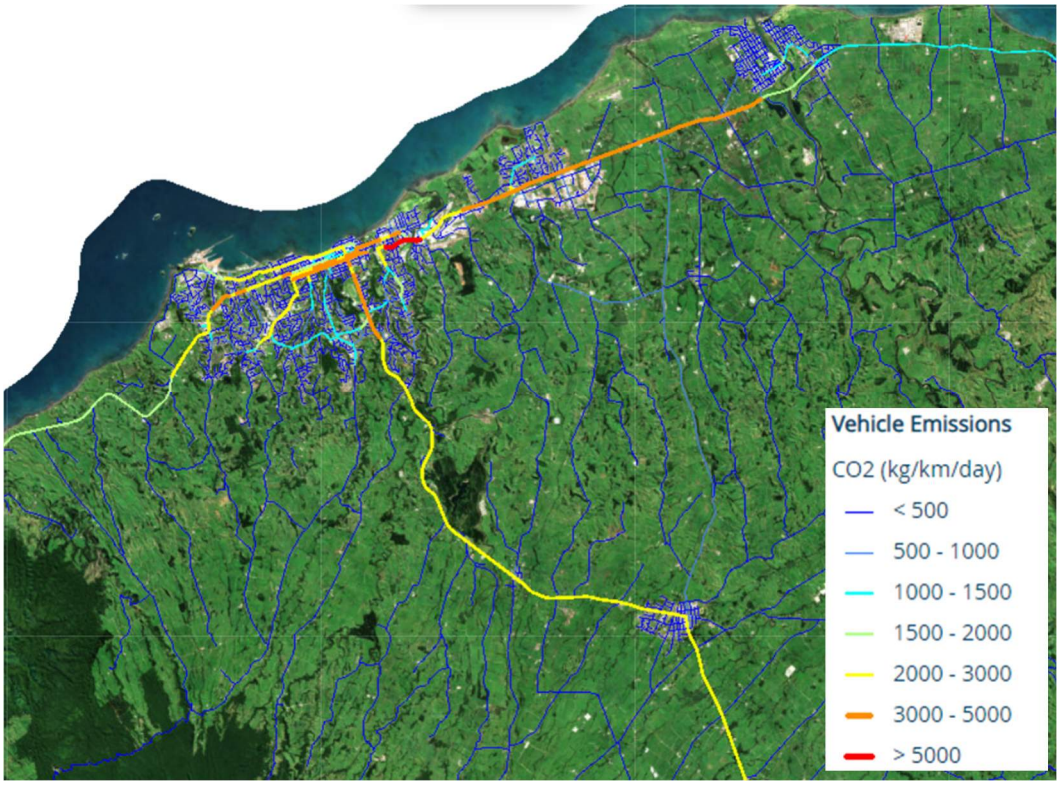


Figure 4-44: Vehicle Emissions in New Plymouth District[39]

4.5.2 Air pollution

Figure 4-45 shows the premature deaths due to air pollution from 2016 based on results from the Health and Air Pollution in New Zealand (HAPINZ) 3.0 study. New Plymouth District experienced 30 to 55 premature deaths because of human-made air pollution in 2016. Additionally, the study reveals the largest contributor to air pollution health impacts across New Zealand is motor vehicles.[40]

[39] https://www.nzta.govt.nz/roads-and-rail/highways-information-portal/technical-disciplines/environment-and-sustainability-in-our-operations/environmental-technical-areas/air-quality/vehicle-emissions-mapping-tool/

[40] https://www.ehinz.ac.nz/indicators/air-quality/health-effects-of-air-pollution/

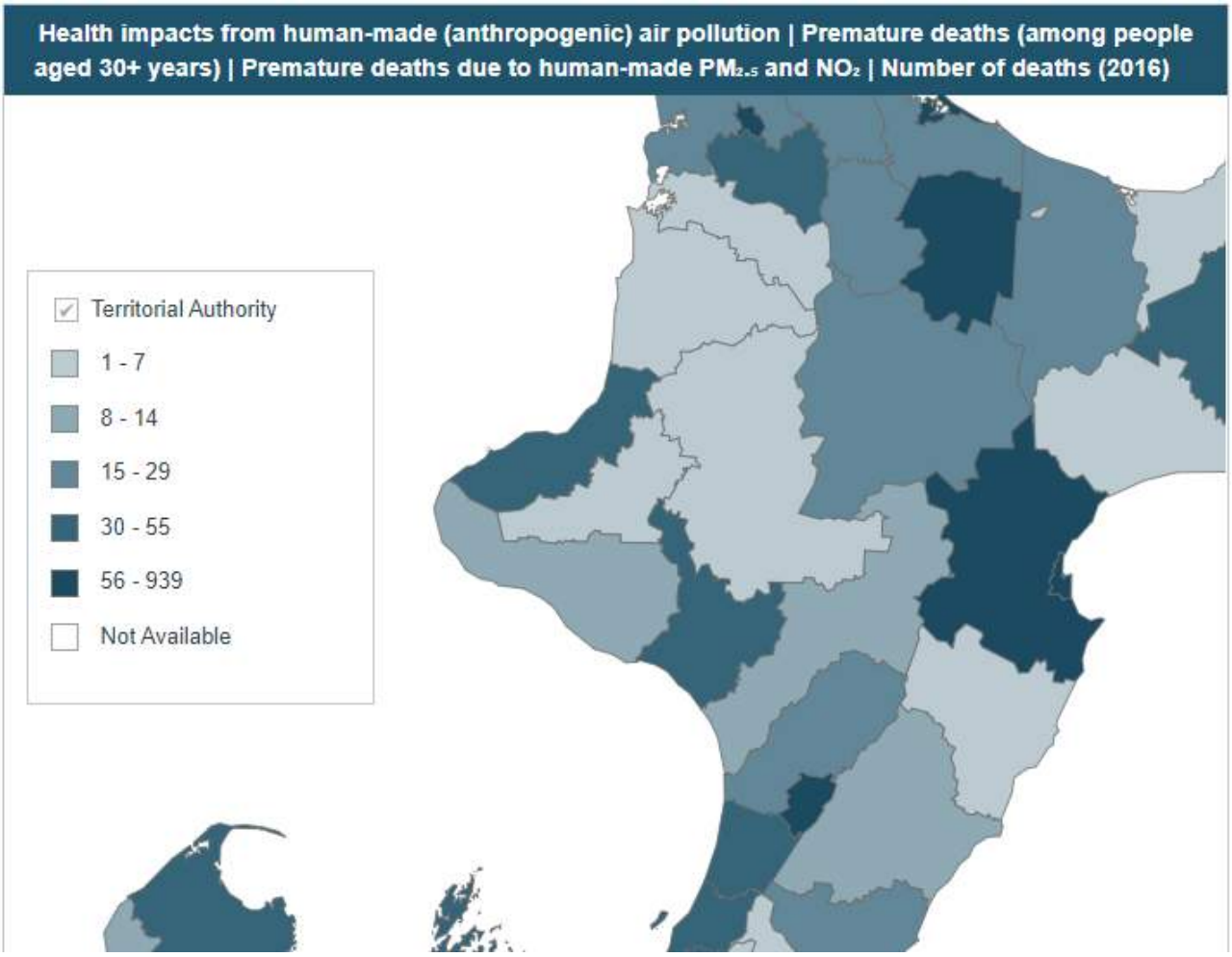


Figure 4-45: Premature deaths due to air pollution (Source: Health and Air Pollution in New Zealand (HAPINZ) 3.0 study)

Key points on contributions to emissions:

- Aspects of all four problems contribute to increasing carbon emissions, which all relate fundamentally to increased travel by private transport relative to other modes.
- There is a need for immediate action to promote more sustainable modes of travel to reduce carbon emissions in the transportation sector which will mitigate the associated health and social risks caused by poor air quality, as well as a changing climate.

4.6 Conclusions

The problems identified by the ILM workshop participants have been reviewed against relevant strategies and the available evidence base.

This has shown that the problems are well aligned with both national and regional strategies, and that there is already supporting evidence for these problems and a need to address them. The strategic case demonstrates the investment needed to support safe and accessible transportation system in New Plymouth which supports the movement of people and goods and provides transport choice.

The following items in **Table 4-9** are information gaps or points from the Strategic Case that would benefit from further investigation and discussion. These are not critical to developing the PBC and can be addressed subsequently to this PBC. There is sufficient evidence in the strategic case to proceed to the economic case.

Table 4-9: Strategic Case evidence gaps

Area	Further aspects to explore
Strategic Alignment	Maintenance considerations as part of GPS 2024 alignment. Community expectation around decreased use of private vehicles may not align with the information in the NPDC Infrastructure Strategy.
Problem 1	Travel patterns and choices outside of travelling to work and education. Public transport reliability. Quality and quantity of active mode links to bus stops and shelters across the district.
Problem 2	Limiting factors of New Plymouth City's linear and low-density form on access to key services. Enabling factors of New Plymouth City's linear form for high-movement public transport corridors. Constraining factors of New Plymouth City's linear form and topography on active mode uptake and congestion. Accessibility of schools across the district.
Problem 3	Modelling data for level of service for public transport, active modes and general traffic and freight. Noise pollution statistics and pollution effects on health. Vibration from vehicle movement statistics.
Problem 4	Evidence of active mode crashes beyond the NZTA Crash Analysis System due to under-reporting.

PART B – DEVELOPING THE PROGRAMME

5 Economic Case

5.1 Overall process

The programme option development and assessment followed the process outlined in **Figure 5-1**.

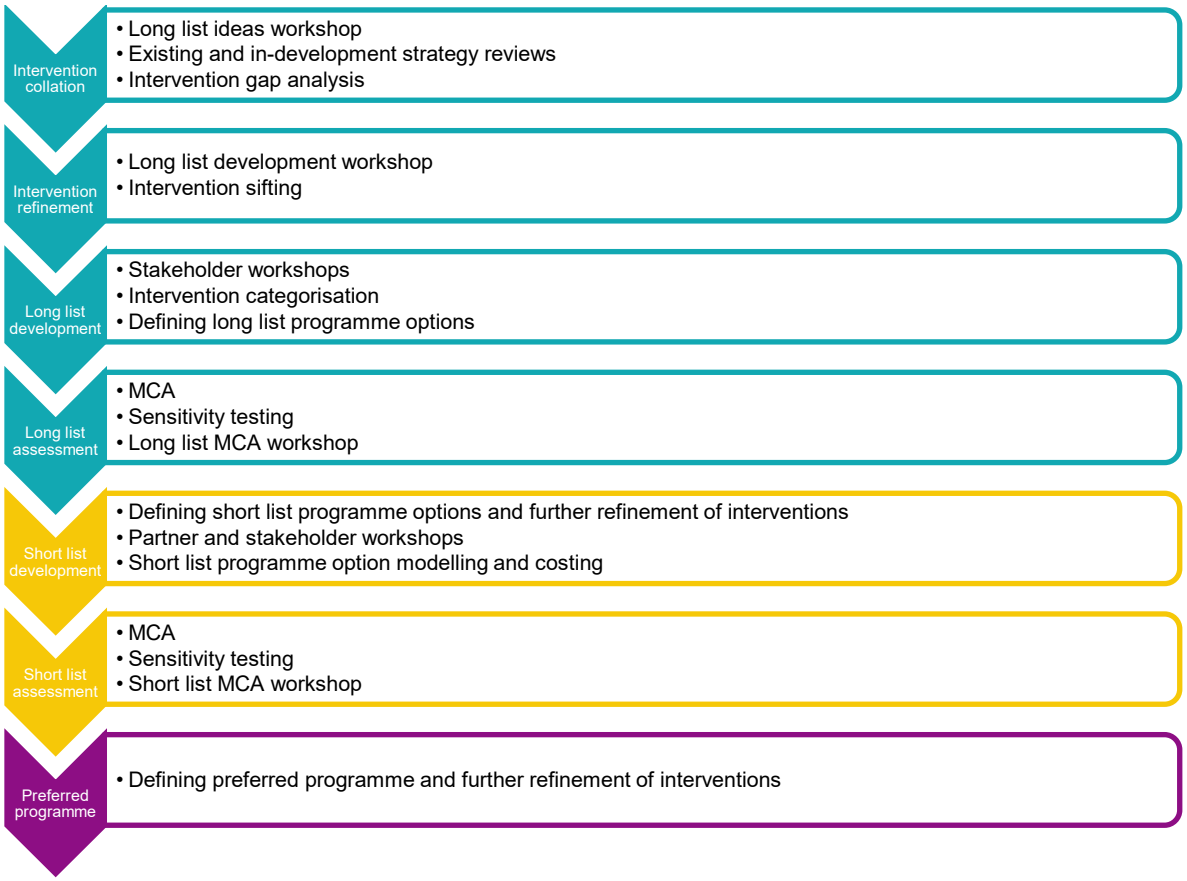


Figure 5-1: Process to develop the preferred programme

5.2 Long list programmes

5.2.1 Long list intervention ideas workshop

The long list intervention ideas workshop was held on the 22nd of March 2023 and was attended by the project partners. Notes from all partner workshops are given in **Appendix D**.

The purpose of long list intervention ideas workshop was to:

- Review and confirm the initial strategic case for this PBC; and,
- Generate a set of intervention ideas that address the evidenced problem statements.

A structured discussion about the strategic case and any amendments or inclusions required took place first. Attendees were then led through a process to generate intervention ideas using maps and other resources to address the problem statements identified.

Key Outcomes from the long list intervention ideas workshop:

- The initial strategic case did not mention resilience. Resilience should be mentioned in the strategic case to support consideration of access and climate resilience.
- The PBC encompasses a long-term vision for the New Plymouth district and should consider land use interventions.
- A set of intervention ideas generated by the project partners for addition to the long list programme options.

5.2.2 Long list intervention collation and gap analysis

An initial set of interventions for long list programme development were collated from the following sources:

- Input from partners through a long list ideas workshop held on 22nd March 2023 (see **5.2.1**).
- Ongoing input from the PBC team (including a SWOT analysis of the New Plymouth transport network).
- A review of existing and in-development strategies, which included the:
  - TRC Public Transport Plan 2020
  - Network Operating Framework (NOF)
  - District Plan
  - City Centre Strategy
  - NPDC Long Term Plan
  - Speed Management Plan
  - Cycling Strategy
  - Transport Choices
  - Regional Land Transport Plan; and,
  - TRC Future of Taranaki Strategy.

The initial set of interventions encompassed a range of different approaches, scales, levels of specificity, and geographies, and are provided in **Appendix E**. Note these interventions were reduced in number and refined during the short list and preferred option stage.

A gap analysis was then conducted on the initial set of interventions. This analysis focused on geographic spread across the region, the intervention type based on the NZTA intervention hierarchy[41], and the transport modes impacted. Given the gaps identified through this process, additional interventions were added with the intention of addressing the problem statements more comprehensively.

This initial collation produced a set of 327 intervention ideas. The set was reduced to 145 interventions after an initial round of cleaning that removed overlapping interventions.

5.2.3 Intervention sifting

Given the large number of potential interventions at this stage, an intervention sift was carried out to better understand the appropriateness and effectiveness of the 145 interventions. The sifting process was based on the NZTA early assessment sifting tool[42]. Upon agreement with NPDC and partners, each intervention was assessed against the five PBC Investment Objectives based on the scoring system in **Table 5-1** and an alignment score was calculated as the average score across all five criteria for each intervention. The higher the score, the lesser aligned with the PBC Investment Objectives. Of the 145 interventions sifted, six had a score of eight and above. Climate change adaptation/mitigation and fatal flaws were two critical success

[41] https://www.nzta.govt.nz/planning-and-investment/funding-and-investing/optioneering/resources/intervention-hierarchy/

[42] https://www.nzta.govt.nz/resources/early-assessment-sifting-tool/

factors (CSFs) assessed in this sifting process (see **Table 5-1**), which helped to increase understanding of the potential impacts and feasibility of the interventions.

Table 5-1: investment objective scoring

Investment objectives	Climate change mitigation/adaptation	Fatal flaws
Alignment and impact on outcomes. **10** – Poor alignment with low impact **9** – Poor alignment with medium impact **7** – Medium alignment with low impact **5** – Medium alignment with medium impact **3** – Excellent alignment with low/medium impact **1** – Excellent alignment with high impact	*Impact on operational emissions.* Increase Neutral Decrease	*Any critical issues with feasibility and viability.* Yes No

The sifting process identified:

- Further duplication of interventions,
- Interventions considered for the do-minimum option only; and,
- Interventions with minimal strategic and investment objective alignment.

5.2.4 Long list development workshop

The long list development workshop was held on the 26th of April 2023 and was attended by the project partners.

The purpose of long list development workshop was to:

- Confirm the do-minimum scenario to use as a baseline for multi-criteria analysis (MCA) at the long list and short list assessment stages,
- Confirm the approach to sifting and refining the intervention set; and,
- Categorise interventions and begin to develop long list programme options.

Partners were led through a structured discussion to achieve the purpose of the workshop.

Key outcomes from the long list development workshop:

- A confirmed do-minimum scenario comprised of activities and interventions that NPDC and TRC had already committed to implement over the next 1 to 3 years.
- A confirmed approach to intervention sifting, but no exclusion of interventions based on high expected cost.
- Confirmed MCA criteria for long list assessment, acknowledging that limited intervention detail is available.
- Agreement that a range of long list programmes, both in scale and purpose, that was preferred for the long list.

5.2.5 Long list stakeholder workshops

Five stakeholder workshops were held during May 2023, which were attended by a variety of stakeholder groups from across the district. Further meetings were held with stakeholders that were unavailable for the May workshops and where that was not possible, some stakeholders provided a written response. This consultation is provided in **Table 5-2**.

Table 5-2: Long list stakeholder workshops

Date	Stakeholder
Wednesday 10th May	North Taranaki Cycling Advocates Safety Interchange New Zealand Police Taranaki Chamber of Commerce St John Ambulance
Tuesday 16th May	Taranaki Disabilities Information Centre Trust I Love Public Transport Taranaki National Road Carriers NZ Police RoadSafe Taranaki Kia Roha Te Whatu Ora
Tuesday 16th May	North Taranaki Cycling Advocates
Thursday 18th May	NP Walkers and Joggers North Taranaki Cycling Advocates
Friday 19th May	Kainga Ora Venture Taranaki
Thursday 27th July	Kiwirail
Wednesday 23rd August	Age concern
Thursday 31st August	Schools: Highlands Intermediate School Inglewood Primary School Waitara East Primary School
Tuesday 19th September	Port Taranaki
Written submission	Zeal (youth)
Written submission	Fire and Emergency New Zealand

The purpose of the stakeholder engagement was to:

- Gauge stakeholder perception of the identified problems.
- Gather additional intervention ideas for consideration in the long list programme options.
- Understand the level of support from stakeholders on perspectives and interventions from the workshops.

The NPDC community engagement team led attendees through the workshops and meetings. Attendees from the wider community were first asked to provide perspectives, potential approaches, and interventions to address the problem statements. Attendees were then asked to vote on which of the suggested approaches and interventions would be the most appropriate and effective.

Key outcomes from the five stakeholder workshops and meetings:

- Inputs from stakeholders covered a range of perspectives and potential interventions.
- Behaviour change was a significant focus. This included both incentivising public transport and active mode travel, and disincentivising private vehicle travel.
- Multi-modal priority was also a significant focus. This included offering improved, more accessible, and safer options for public transport users, pedestrians, and cyclists.
- Connectivity and integrated planning were also focus points from the attendees. This included improved bus frequencies and routes, improving, or removing disjointed connections on public transport and active mode networks, building communities, and encouraging density and mixed-use developments.

Additionally, a workshop with the Ngā Kaitiaki forum was held on the 14th of June 2023. The purpose of the workshop was to understand the types of interventions the forum thought would be beneficial for the district.

Attendees from the Ngā Kaitiaki forum followed a structured discussion with the NPDC community engagement team to achieve the purpose of the workshop.

Key outcomes from the Ngā Kaitiaki forum workshop:

- Prioritise reducing the impact of freight and heavy vehicles on the network.
- Manage growth areas and high-volume routes to avoid congestion.
- Improve safety for students and children around school areas, which includes safe areas for buses and car-free zones.
- Improve connections and traffic flows to better access and utilise natural assets such as the coast, mountains, and rivers.
- Improve connectivity across the district, especially for isolated communities.
- Integrate indigenous narratives and destinations for mana whenua stories.
- Create more localised and people-friendly centres across the district.
- Create safer and more accessible public transport and active mode networks, especially for elderly and disabled people.
- Consider discounted parking options for service providers and elderly.
- Consider mass rapid transport for cruise ships and northern growth areas.

Ultimately, these workshop outcomes confirmed that the set of interventions for long list programme development addressed most of the relevant perspectives and concerns of the Ngā Kaitiaki forum.

5.2.6 Long list programme development

Through the intervention sifting process, long list development workshop, and stakeholder workshops the intervention set size was reduced to 115 interventions. This set of interventions was carried through to long list programme development. To assess how well the interventions covered a range of factors, a gap analysis was completed against the NZTA Intervention Hierarchy, and the region and transport modes the intervention will impact. The comprehensive spread of the long list interventions across the intervention hierarchy, regions, and transport modes are shown in **Figure 5-2**, **Figure 5-3** and **Figure 5-4** respectively.

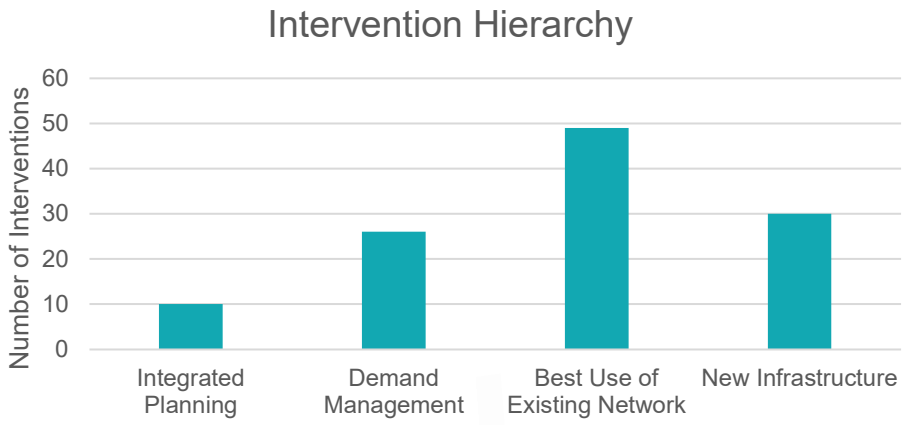


Figure 5-2: Long list intervention spread against the NZTA Intervention Hierarchy

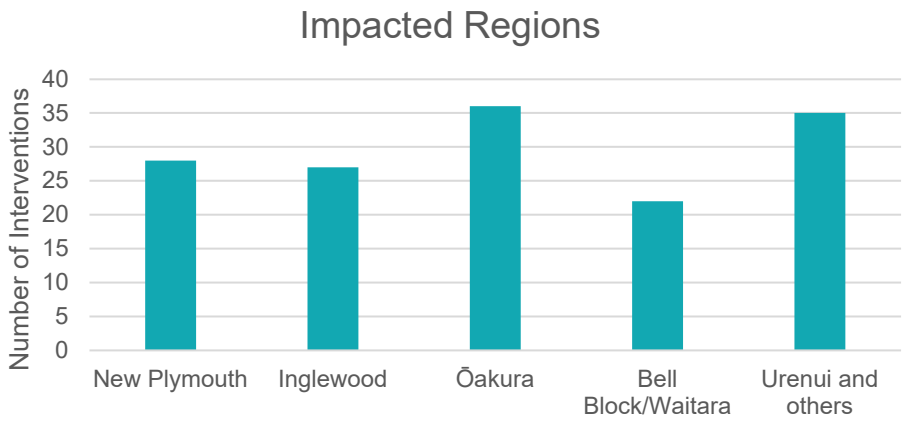


Figure 5-3: Long list intervention spread against impacted regions

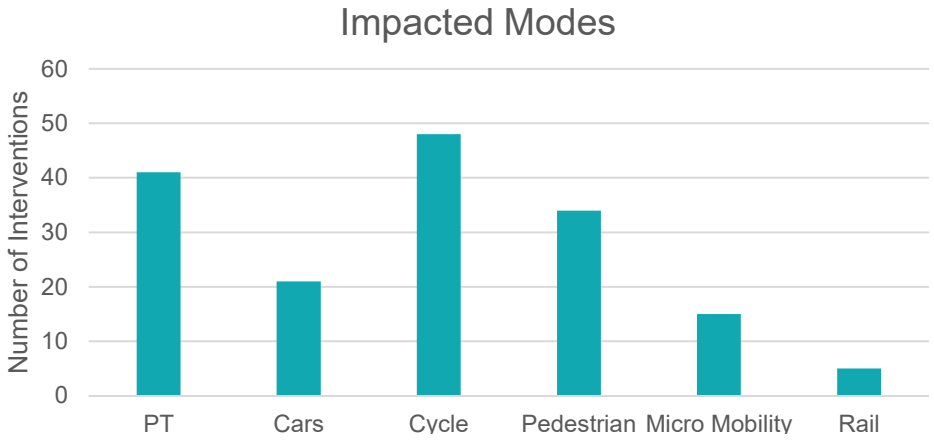


Figure 5-4: Long list intervention spread against impacted modes

To develop the long list of programme options, the set of interventions were first grouped into intervention categories. The categories partition the interventions into specific approaches to addressing the four problem statements and served as the building blocks from which the long list programme options were developed. The long list programme option descriptions, composition, intervention categories and their connections to the problem statements are shown in **Table 5-3**. The full long list of interventions is given in **Appendix E**.

Table 5-3: Intervention categories, long list programme options, and their alignment to the problems at long list stage

Problem statement	Intervention category	Number of intervention items	Long list programme options								
			Balanced	Safer outcomes	PT enabled urban growth	Reduce transport emissions	Connected urban centres	CBD accessibility	Liveability	Resilience and freight	Low-cost low risk
			District Plan growth supported by a mix of resilience, safety, and accessibility projects for all modes.	Improved safety for all modes to tackle the existing problems areas on the network.	Supporting increased urban densification beyond the District Plan by integrating transport and land use.	Maximise transport emissions reduction by pulling all possible levers, with limited focus on safety and liveability.	Creating local activity centres with high efficiency transport corridors and active mode and public transport connections to New Plymouth CBD.	Focus on improved accessibility to the New Plymouth CBD from across the district for all modes.	Improved liveability and accessibility of centres with a focus on people and active modes.	Focus on freight accessibility and the resilience and safety of the roading network (reference option).	Lower cost and lower risk interventions only from the highlighted categories.
Public transport is not competitive with private vehicle travel or convenient to access from active modes resulting in low public transport use and poor customer experience.	Improve public transport frequencies, level of service, and reliability to make PT a more attractive option.	6	■		■	■	■	■	■	■	
	Improve public transport infrastructure and travel time to make public transport more reliable.	5	■	■	■	■	■				
	Align public transport routes with key destinations and make public transport more accessible.	7			■	■	■	■	■		
	Reduce the need to travel where traditional public transport is not competitive.	2				■			■		
Most urban areas have low density residential developments that make access by public transport, walking and cycling difficult resulting in high dependency on private vehicles and increasing transport costs for the community that especially impact lower socio-economic groups.	Address cost imbalance between of driving and alternative modes.	6				■		■	■		
	Improve multi-modal access for communities outside of central New Plymouth.	14	■	■	■	■	■		■		
	Resilient connections at network pinch points for all modes.	6	■	■			■			■	
The network is configured to prioritise private vehicles and road freight over other modes resulting in issues across the cities and towns including severance, and declining amenity.	Reduce the fossil fuel energy use of the transport network.	7				■			■	■	
	Travel demand and travel behaviour management.	2				■	■	■			
	Reconfigure streets to align with One Network Framework outcomes and provide facilities for all modes.	15	■	■	■		■	■	■	■	
	Safe road connections at network pinch points.	1	■	■					■	■	

Problem statement	Intervention category	Number of intervention items	Long list programme options								
			Balanced	Safer outcomes	PT enabled urban growth	Reduce transport emissions	Connected urban centres	CBD accessibility	Liveability	Resilience and freight	Low-cost low risk
			District Plan growth supported by a mix of resilience, safety, and accessibility projects for all modes.	Improved safety for all modes to tackle the existing problems areas on the network.	Supporting increased urban densification beyond the District Plan by integrating transport and land use.	Maximise transport emissions reduction by pulling all possible levers, with limited focus on safety and liveability.	Creating local activity centres with high efficiency transport corridors and active mode and public transport connections to New Plymouth CBD.	Focus on improved accessibility to the New Plymouth CBD from across the district for all modes.	Improved liveability and accessibility of centres with a focus on people and active modes.	Focus on freight accessibility and the resilience and safety of the roading network (reference option).	Lower cost and lower risk interventions only from the highlighted categories.
The current active mode transport networks are fragmented and have unsafe connections resulting in safety issues, poor perception of the network and low active mode uptake.	Safety improvements for existing active mode facilities.	10	■	■			■	■	■		
	Improve the quality of connections to high level of service active mode routes.	3					■	■	■		
	Improve attractiveness and personal safety of active mode facilities.	12		■		■	■	■	■		
	New active mode facilities targeted at mode shift.	3	■		■	■	■	■			
	Complete the urban cycle network.	7				■	■		■		
Land Use	Increase population density in areas near key urban centres and destinations.	4			■	■		■	■		
	Reduce the need to travel where car alternatives are less viable.	3				■				■	
Other	Business as usual roading improvements	2									

5.2.7 Do Minimum

The do-minimum scenario was confirmed with the partners, and comprised of activities and interventions that NPDC and TRC had committed to implement or are likely to implement over the next 1-3 years. **Table 5-4** details the interventions that have been included within the transport model**.** More information on the do-minimum is provided in **Section 5.4** and the separate modelling report. Note the total allocated in the 2021-2031 Long Term Plan for transport projects is approximately $74 million, with $35 million allocated in years 1 to 3. Do-minimum interventions that fall outside the model include:

- Te Rewa Rewa bridge maintenance
- Inglewood Windsor walkway safety improvements
- Dixon Street to Corbett Park walkway
- General road improvements:
  - Mangorei Road kerb and channel
  - Bayley Street kerb and channel
  - Sisson Terrace widening
  - 'Welcome to Waitara' signage
  - North Egmont carpark.
- Raleigh Street and Tate Road intersection improvements
- Brois Street – Govett Avenue intersection improvements

Table 5-4: Do-minimum modelled interventions

Project	Modelled Year	
	2035	2053
Road Network Model		
Free Speed Reduction to 30 km/hr on Gover Street, Fillis Street, Liardet Street from Gover Street / Rogan Street to Molesworth Street / SH44	✓	✓
Free Speed Reduction to 30 km/hr on all school frontages	✓	✓
Signalisation at Tukapa Street / Sanders Avenue.	✓	✓
Upgrade of Intersection Layout at Mangorei Road/ Rimu Street Intersection	✓	✓
Signalisation at Lorna Street / Devon Street.	✓	✓
Single Lane Roundabout at Parklands Avenue / Mangati Road.	✓	✓
Realignment of Airport Drive to connect with Parklands Avenue	✓	✓
Single Roundabout at Belair Avenue / Ōmata Road	✓	✓
Two-Lane Junction Bridge (one Lane per Direction)	✓	✓
Signalisation at SH3 / Henwood Road Interchange	✓	✓
Signalisation at Nugent Street / Henwood Road	✓	✓
New Connection and Intersections between Egmont road and Henwood road via Bishop road	✓	✓
Two-Lane Corbett Road Bridge (one Lane per Direction)	✓	✓
Upgrade Roading and Intersections on Mangorei Road (Tupuhi Place to Mangorei School)	✓	✓
Upgrade the Intersection Layout at Egmont Road/ SH3		✓
New Connection and Intersections from Colson Road to Henwood Road		✓
Public Transport Network Model		
New Express Service between CBD and Waitara	✓	✓
Increase Route 20 (Waitara - Bell Block - CBD service) frequency from 1 bus/hr to 2 bus/hr	✓	✓
Cycle Network Model		

Project	Modelled Year	
	2035	2053
Devon St West from Barrett Road - Dawson Street. Approximately 3.7km of separated cycle facilities, 17 intersection improvements (of which detailed design exists for 10), 3 raised safety platforms (of which detailed design exists for two excluding separated cycle facilities, and concept design for one.)	✓	✓
Mangorei Road, Northgate - SH3. The intention is to develop the concept and scheme design for the full corridor but consult and construct on the section from Merrilands Shops to Northgate. Approx 1.1km of improved on road cycle facility (of which detailed design is complete for the first 150m), 2 raised safety platforms (of which one has detailed design), and approx 615m of shared pathway (150m which has detailed design complete).	✓	✓
SH44, Ngamotu Road - Hobson Street. The intention is to develop the concept and scheme design for the full corridor but consult and construct on the section from Ngamotu to Liardet Street. Approximately 4km of separated cycle facilities, 20 intersection improvements, 3 raised safety platforms, 2km of shared pathways.	✓	✓
Devon Street East & Clemow Road Record - Eliot. Approx 1.6km of separated cycle facilities, 1.2km of neighbourhood greenway, 1 raised safety platform and 1 set of traffic signals. The intention for this project is to complete at pre-implementation, as we do not have sufficient construction capacity in the timeframes required.	✓	✓
Coronation Avenue - Liardet Street, Approximately 1.3km of separated cycle facilities, 800m of neighbourhood greenway, 2 sets of traffic signals. The intention for this project is to complete pre-implementation, as there is not sufficient construction capacity in the timeframes required.	✓	✓
Waiwhakaiho pedestrian bridge to The Valley	✓	✓
Pohutukawa Place walking and drainage improvements	✓	✓
Waitaha Stream underpass	✓	✓
Coastal Walkway Extension to Waitara	✓	✓

5.3 Long list programme assessment

5.3.1 Long list assessment criteria

The long list programme options were assessed against the criteria in **Table 5-5**. The categories and criteria are based on NZTA MCA guidance[43]. The criteria weightings within the investment objectives category reflect the corresponding investment objective weights. The criteria weightings across the critical success factors and impacts and opportunities were set to evenly distribute their influence on the scoring outcome relative to the investment objectives.

[43] https://www.nzta.govt.nz/assets/resources/multi-criteria-analysis/multi-criteria-analysis-user-guidance.pdf

Table 5-5: Long list MCA criteria with baseline weightings

Category	Category overall weighting	Criteria	Criteria weighting within category	Scorer
Investment objectives	50%	Improve public transport network access, reliability, and travel times.	30%	PBC team, reviewed by partners.
		Reduce private vehicle reliance and transport related emissions and increase mode shift.	35%	
		Positive impact on local centres, network productivity and utilisation.	7.5%	
		Improve multi-modal access to key amenity locations.	7.5%	
		Improve the safety and attractiveness of active mode networks for all users (eg children, elderly, and people with disabilities).	20%	
Critical success factor	16.7%	Technical achievability – What are the technical risks and practical considerations involved in implementing this option?	50%	PBC team, reviewed by partners.
		Affordability – Does the cost of this option fit within the likely funding available? What factors might affect the ability of the project owner to afford the cost to operate and maintain the option over its projected life?	50%	
Impacts and Opportunities	33.3%	Te Ao Māori – What, if any, impacts are there on Te Ao Māori?	25%	NPDC on behalf of Ngā Kaitiaki forum.
		Social and cultural impacts – What social or cultural impacts are associated with this option?	25%	PBC team, reviewed by partners.
		Climate change mitigation – What is the long-term carbon emissions impact of the option?	25%	
		Climate change adaptation – How effective is the option at reducing the exposure to physical risks from climate change?	25%	

The following criteria were considered but omitted from the assessment for the reasons noted below:

- **Value for money:** Economic analysis was not conducted at this stage, so indicative costs and benefits are unknown.
- **Scheduling/programming:** Options are all long-term programmes, so timing is not yet a factor.
- **Cumulative effects:** Options are high-level in nature, so there is insufficient detail on cumulative effects.

Criteria were scored using a typical seven-point scale (see **Table 5-6**) to reflect their performance over the full 30-year analysis period (2023 to 2053) relative to the do-minimum scenario.

Table 5-6: Seven-point scoring system used for MCA

Magnitude	Definition	Score
Large positive	Major positive impacts resulting in substantial and long-term improvements or enhancements of the existing environment.	3
Moderate positive	Moderate positive impact, possibly of short-, medium- or long-term duration. Positive impacts may be in terms of new opportunities and outcomes of enhancement or improvement.	2
Slight positive	Minimal positive impact, possibly only lasting over the short term. May be confined to a limited area.	1
Neutral	No discernible or predicted positive or negative impact relative to the do-minimum.	0
Slight negative	Minimal negative impact, possibly only lasting over the short term, and able to be managed or mitigated. May be confined to a small area.	-1
Moderate negative	Moderate negative impact. Impacts may be short-, medium- or long term and are highly likely to respond to management actions.	-2
Large negative	Impacts with serious, long-term, and possibly irreversible effect leading to serious damage, degradation, or deterioration of the physical, economic, cultural, or social environment. Required major rescope of concept, design, location, and justification, or requires major commitment to extensive management strategies.	-3

5.3.2 Long List MCA workshop

The long list MCA workshop was held on the 23rd of May 2023 and was attended by the project partners.

The purpose of long list MCA workshop was to:

- Agree MCA scoring for the long list programme options,
- Agree sensitivity testing for the long list programme options; and,
- Identify the emerging short list programme options.

Attendees were led through a structured discussion about the MCA scoring, sensitivity tests, and amendments required.

Key outcomes from the long list MCA workshop:

- The low-cost low risk option was removed from the long list programme options, as the programme interventions were scattered across categories and the programme itself did not focus on any specific outcomes.
- Mention of climate resilience should be removed from the long list programme options and the strategic alignment diagram, as it is not properly connected to the problem statements.
- The initial scoring by the PBC team was adjusted and confirmed by the partners. The Long list MCA raw scores and weighted score are provided in **Table 5-7**
- The partners agreed with the sensitivity tests for the long list assessment.

Table 5-7: Long list MCA raw scores and weighted score

Programme option	Investment objectives					Critical success factors		Impacts and opportunities				Weighted score
	Improve public transport network access, reliability, and travel times	Reduce private vehicle reliance and transport related emissions and increase mode shift.	Positive impact on local centres, network productivity and utilisation.	Improve multi-modal access to key amenity locations.	Improve the safety and attractiveness of active mode networks for all users (eg children, elderly, and people with disabilities).	Technical achievability	Affordability	Te Ao Māori	Social and cultural impacts	Climate change mitigation	Climate change adaptation	
Balanced	2	1	2	2	2	-1	-2	0	2	1	0	0.82
Safer outcomes	1	1	2	1	1	-1	-2	2	2	1	1	0.79
PT enabled urban growth	3	2	2	2	1	-2	-2	2	2	2	0	1.22
Reduce transport emissions	3	3	1	2	2	-2	-3	1	-1	3	1	1.20
Connected urban centres	3	2	3	3	3	-2	-3	3	3	2	2	1.74
CDB accessibility	2	2	1	2	3	-2	-2	0	2	2	0	1.06
Liveability	2	3	1	2	3	-2	-3	3	2	3	3	1.74
Resilience and freight	0	2	2	1	0	-1	-2	2	1	2	2	0.89

5.3.3 Long list programme scoring

Raw scoring and the final weighted score of the long list programme options is shown in **Table 5-7**.

The initial weighted scoring identified 'Connected urban centres', 'Liveability', 'PT enabled urban growth', and 'Reduce transport emissions' as the highest scoring programmes.

5.3.4 Long list sensitivity testing

The following sensitivity testing was conducted to assess the robustness of the programme option ranking from the initial weighted scoring:

- **Accessibility 1:** 'Te Ao Māori' and 'Social and cultural impacts' are the only included impacts and opportunities criteria.
- **Accessibility 2:** 'Te Ao Māori' and 'Social and cultural impacts' are the only included impacts and opportunities criteria. 'Reduce private vehicle reliance and transport related emissions and increase mode shift' are excluded from the investment objectives.
- **Climate 1:** 'Climate change mitigation' and 'Climate change adaptation' are the only included impacts and opportunities criteria.
- **Climate 2:** Climate change mitigation' and 'Climate change adaptation' are the only included impacts and opportunities criteria. All but 'Reduce private vehicle reliance and transport related emissions and increase mode shift' are excluded from the investment objectives.

The results of the sensitivity testing are shown in **Table 5-8.** 'Connected urban centres' and 'Liveability', were still the highest performing programmes. Considering the performance of the 'Reduce transport emissions' programme in the climate sensitivity tests, and its significant intervention category overlap with 'PT enabled urban growth', these two programmes were combined to form a new programme option 'Reduce transport emissions hybrid'. Full scoring rationale is given in **Appendix F**.

Table 5-8: Long list programme option rankings from MCA sensitivity testing

Programme option	Baseline weighting	Sensitivity scenario				Average ranking
		Access 1	Access 2	Climate 1	Climate 2	
Balanced	6	6	4	7	8	6.2
Safer outcomes	8	5	6	8	7	6.8
PT enabled urban growth	3	3	3	5	5 =	3.8
Reduce transport emissions	4	7	7	3	2	4.6
Connected urban centres	1	1	1	2	4	1.8
CDB accessibility	5	4	5	4	5 =	4.6
Liveability	2	2	2	1	1	1.6
Resilience and freight	7	8	8	6	3	6.4

The programmes taken through to the short list were:

- ‘Connected urban centres’
- ‘Liveability’
- ‘Reduce transport emissions hybrid’

5.4 Short list programmes

5.4.1 Short list development

Following on from the long list stage, the intended short list process was to complete the following steps:

- Further develop and confirm the three programmes taken forward to the short list stage.
- Model the short list options to understand their impact on the New Plymouth District’s transport network.
- Use the modelling outputs to measure the investment KPIs and update the MCA scoring for the short list.
- Define an emerging preferred option.

5.4.2 Strategic Alignment Diagram

During the process of programme development, the PBC team developed a strategic alignment diagram to:

- Better communicate the link between the problems evidenced in the strategic case and the proposed intervention categories, so that the need for the interventions was clear; and,
- Focus the development and assessment of the programmes on intervention categories, rather than the individual interventions themselves.

The strategic alignment diagram for the short list stage is given in **Appendix G**.

5.4.3 Short list workshop 1

The first short list workshop was held on the 21st of June 2023 and was attended by the project partners.

The purpose of the first short list workshop was to:

- Reconfirm MCA scoring for long list programme options,
- Discuss and develop detail within the short list programme options; and,
- Discuss approach to the short list stakeholder engagements.

Attendees were led through a structured discussion about the scoring and short list detail.

Key outcomes from the first short list workshop:

- Despite progressing to the short list stage already, the upcoming elected members workshop will generate feedback on all long list programme options. It is important to communicate the reduced nature of some of the programme options relative to others. For example, ‘Resilience and freight’ is an indicative reference option that is largely covered by other programme options that scored highly at the short list stage.
- Schedule the interventions within their categories of the short list programme options into short- (0-5 years), medium- (6-15 years), and long-term (16+ years) timeframes with the NZTA intervention hierarchy in mind.
- Visualise the do-minimum scenario and short list programme options (e.g., through a GIS platform) to effectively communicate the scope and differences of the programmes.
- Create a ‘Common interventions’ short list programme option that is comprised of the intervention categories that are similar across all three initial short list programme options. This will improve understanding of the efficacy of the common interventions between the short list programmes and the impact of the nuances between the programmes.

5.4.4 Elected member workshop

An elected member workshop was held on the 5th of July 2023, which were attended by elected members of the NPDC and community board members.

The purpose of the elected member workshop was to:

- Provide elected members insight and context around the ITF and the PBC process.
- Gauge elected member perception of the proposed long list programme options.
- Understand the level of support from elected members on activities within the programme options.

The NPDC community engagement team led attendees through the workshop. Attendees were first presented with a summary of the intervention categories and key interventions. Attendees were asked to vote on which of the suggested approaches and interventions would be the most appropriate and effective within each programme option. Finally, attendees were asked to select their preferred programme option.

Key outcomes from the elected member workshop:

- The top three preferred programmes from the elected members were:
  - 'Connected urban centres',
  - 'PT enabled urban growth'; and,
  - 'Resilience and freight'.
- The interventions that elected members were most in support of included:
  - Separated routes for freight,
  - Increased capacities on arterial routes,
  - Improving public transport frequencies, reliability, and levels of service; and,
  - Improving bus stops, hubs, and connections.
- The interventions that elected members were most opposed to included:
  - Making the one-way system two-way,
  - Removing one of the state highways through the city centre,
  - Reprioritising streets with a pedestrian focus; and,
  - Connected cycle network to key tourist destinations.

5.4.5 Short list workshop 2

The second short list workshop was held on the 13th of July 2023 and was attended by the project partners.

The purpose of the second short list workshop was to:

- Discuss outcomes from short list stakeholder workshops,
- Confirm detail within short list programmes for modelling; and,
- Prepare for the short list MCA.

Attendees were led through a structured discussion about the stakeholder workshop outcomes, short list details, and approach to the short list MCA.

Key outcomes from the second short list workshop:

- Confirmation of interventions within short list programme options.
- Confirmation of the benefits to be derived from the modelling outputs and crash data using standard procedures and crash analyses from the NZTA Monetised Benefits and Costs Manual (MBCM)[44].
- The short list MCA will use the same criteria and sensitivity tests as the long list MCA and scoring will be updated based on the modelling outputs and measured investment KPIs from this.

[44] https://www.nzta.govt.nz/assets/resources/monetised-benefits-and-costs-manual/Monetised-benefits-and-costs-manual.pdf

5.4.6 Short list programme development

Progressing through the short list process, the following developments were made to the short list programme options:

- The intervention set size increased to 119 interventions, due to further consolidation of interventions and the inclusion of all necessary precursor studies and business cases to shape and justify interventions.
- Four of the smaller intervention categories were consolidated into the remaining 14 intervention categories for brevity.
- Within the 'Reconfigure streets to align with One Network Framework outcomes and provide facilities for all modes' category, some significant interventions related to best use of the existing network and new infrastructure were retained in only the 'Connected urban centres' and 'Liveability' programme options.
- A 'Common interventions' option was included for short list assessment (see **Section 5.4.3**).

The short list programme option descriptions, composition, intervention categories and their connections to the problem statements are shown in **Table 5-9** and **Figure 5-5** to **Figure 5-9**. The proposed high-level scheduling of the interventions within each short list programme option is given in **Appendix E**.

5.4.7 Short list modelling

Short list programme option modelling was undertaken using the Ngāmotu Strategic Transport Model (STM) to quantify the impacts of the short list programme options on the New Plymouth District's transport network for MCA scoring. The modelling adopted an average population growth 0.9% per year over the 2018 to 2048 period, as per NPDC projections. To model the short list programme options while maintaining a high-level view as appropriate for a PBC, the following approach was adopted:

- Define model inputs based on the intended outcomes the intervention category level.
- Only consider the impacts of interventions that could be well represented in the model.
- Combine building blocks of intervention category level model inputs to constitute the programme options.
- Model two future scenarios: 2035 (medium-term) and 2053 (long-term).

A high-level description of the modelling inputs for the short list programme options is given in

Table 5-10. Full detail on the short list modelling inputs is given in the supplementary model forecasting report.

5.4.8 Short list economic analysis

Economic analysis was undertaken to assess the costs and benefits of the short list programme options:

- Programme option costs were built up from intervention costs estimated by the Beca costing team and NPDC. 85 of the 119 short list interventions were explicitly costed, although these costs covered several of the uncosted interventions implicitly.
- Where possible, the intervention cost estimates have been taken from the NPDC LTP 2021 – 2031. The 30-year non-discounted P5, P50, and P95 costs of the short list programme options are given in **Table 5-11,** the short list intervention P50 capital costs are given in **Appendix E**, and the full costing methodology and calculations are given in the supplementary cost estimation spreadsheet.
- Monetised programme option benefits were calculated from both the Ngāmotu STM outputs and crash analysis system (CAS) data using standard NZTA MBCM processes. A summary of the monetised benefits and their modelled 40-year discounted values for the short list options are given in **Table 5-12** and **Table 5-13** respectively.
- Economic sensitivity testing was also conducted on the expected programme costs, significant benefit sources, and discount rate to better understand the efficiency of the short list programme options. The

economic sensitivity tests are described in **Table 5-14** and the benefit cost ratio (BCR) analysis outcomes are given in **Table 5-15**.

Full details on the BCR assessment methodology are given in **Appendix H**.

Of the remaining uncosted interventions that are not implicitly covered by other intervention costs:

- Some are focussed on education, subsidies, and promotion of alternative modes, which are difficult to cost realistically at the programme level.
- Some related to district wide tourism and recreational routes which have no defined scope and so cannot be costed.
- Some related to freight movement restructuring which has no defined scope and so cannot be costed.
- Resilience upgrades for isolated communities has no defined scope and so cannot be costed.
- Implementing a road pricing system has no defined scope and so cannot be costed.
- Implementing new bus apps and ticketing systems has no defined scope and so cannot be costed.

Do Minimum

Problem	Intervention Category
Public transport is not competitive, nor convenient to access from active modes, resulting in low public transport use and poor customer experience	
The urban areas have mainly developed in a linear form along the coast with low density residential developments resulting in high dependency on private vehicles and increasing transport costs for the community, especially lower socio-economic groups	
The network is configured to prioritise private vehicles and road freight over other modes resulting in issues across the city and towns including severance, and declining amenity	
A fragmented network for active modes (walking, cycling and micro-mobility) with poor (unsafe) connections resulting in safety issues, poor perception of the network and low active mode uptake.	

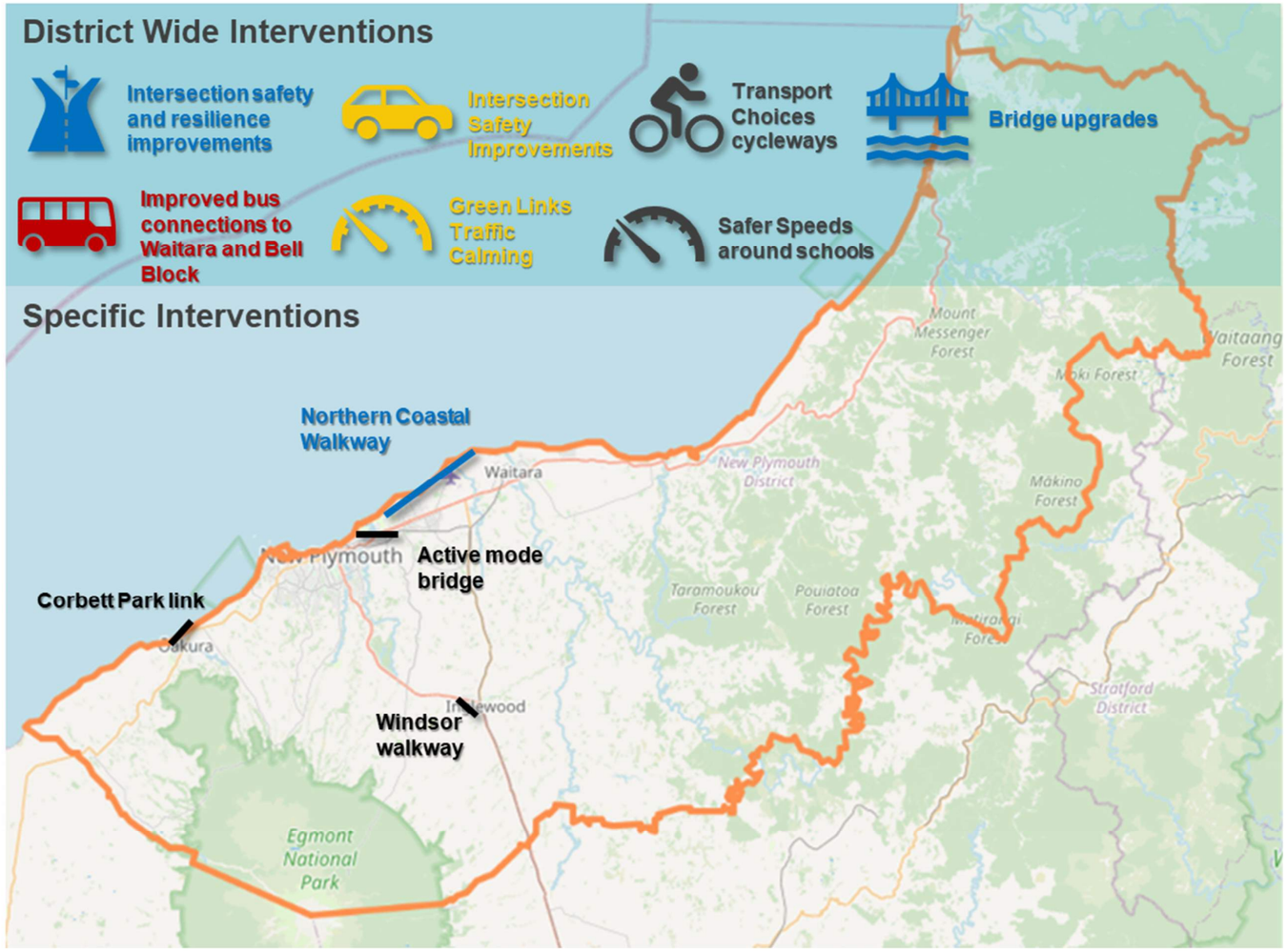


Figure 5-5: Short list Do-minimum

Common Short List Interventions

Problem	Intervention Category
Public transport is not competitive, nor convenient to access from active modes, resulting in low public transport use and poor customer experience	Improve PT frequencies, and LOS to make PT a more attractive option
	Align PT routes with key destinations and make PT more accessible
The urban areas have mainly developed in a linear form along the coast with low density residential developments resulting in high dependency on private vehicles and increasing transport costs for the community, especially lower socio-economic groups	Improve lower cost multi-modal access, especially for communities outside of central New Plymouth
The network is configured to prioritise private vehicles and road freight over other modes resulting in issues across the city and towns including severance, and declining amenity	Reconfigure streets to align with One Network Framework outcomes and provide facilities for all modes
A fragmented network for active modes (walking, cycling and micro-mobility) with poor (unsafe) connections resulting in safety issues, poor perception of the network and low active mode uptake.	Improve attractiveness and accessibility of active mode facilities
	Complete the urban cycle network

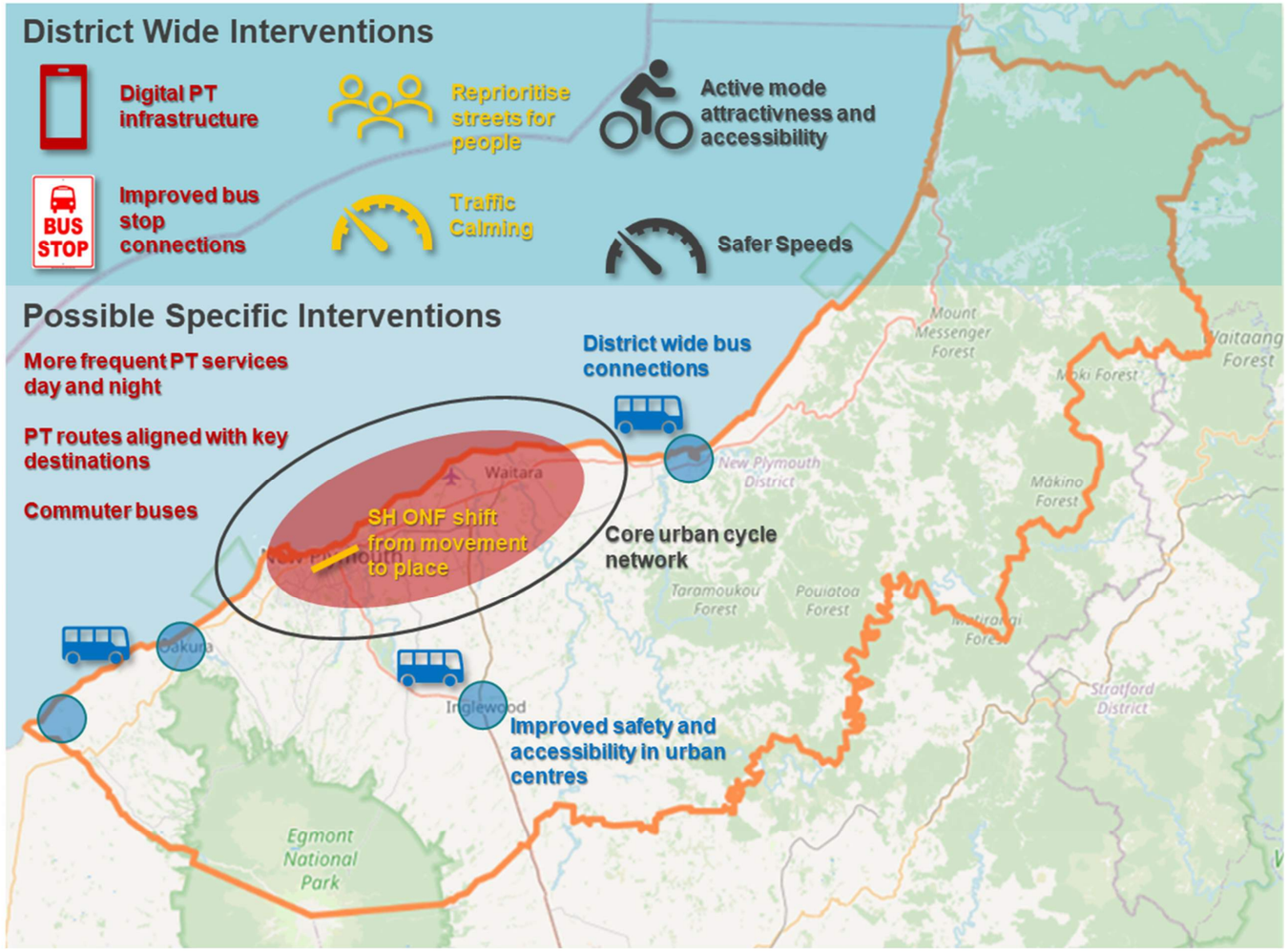


Figure 5-6: Short list ‘Common interventions’ programme

Liveability (Unique Interventions)

Improved liveability and accessibility of centres with a focus on people and active modes in response to Problem 3 and 4.

Problem	Intervention Category
The network is configured to prioritise private vehicles (including freight) over other modes resulting in issues across the city and towns including severance, and declining amenity.	Reduce the fossil fuel energy use of the transport network
	Safe road connections at network pinch points
A fragmented network for active modes (walking, cycling and micro-mobility) with poor (unsafe) connections resulting in safety issues, poor perception of the network and low active mode uptake.	Safety improvements for existing active mode facilities
Land Use.	Increase population density in areas close to key urban centres and destinations

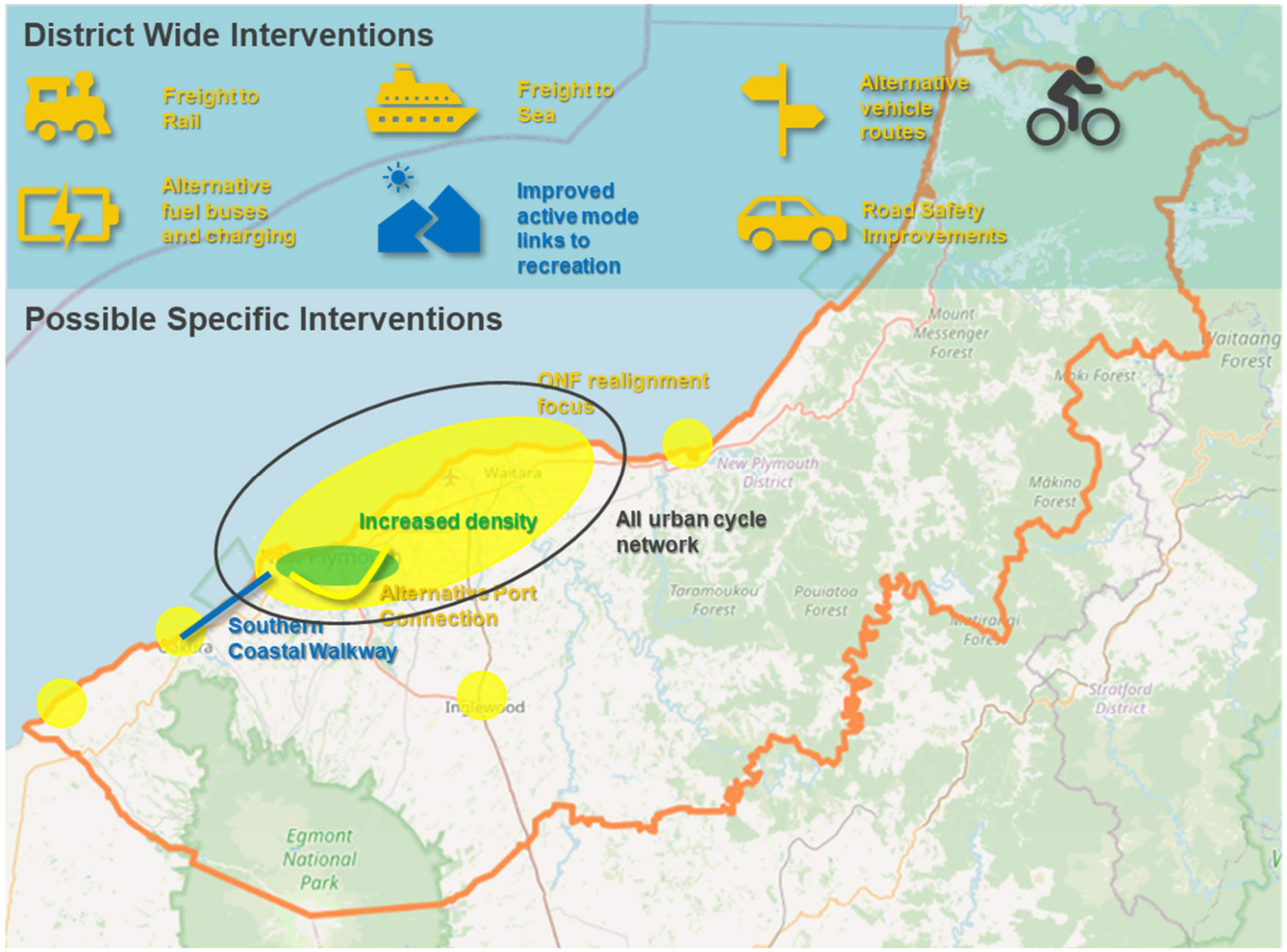


Figure 5-7: Short list 'Liveability' programme unique interventions

Connected Urban Centres (Unique Interventions)

Increase accessibility across the District by creating local centres with good active mode connections alongside high efficiency transport corridors to New Plymouth CBD in response to all problems.

Problem	Intervention Category
Public transport is not competitive, nor convenient to access from active modes, resulting in low public transport use and poor customer experience	Improve public transport infrastructure and travel time to make PT more attractive and accessible
The urban areas have mainly developed in a linear form along the coast with low density residential developments resulting in high dependency on private vehicles and increasing transport costs for the community, especially lower socio-economic groups	Resilient connections at network pinch points for all modes
The network is configured to prioritise private vehicles and road freight over other modes resulting in issues across the city and towns including severance, and declining amenity	Travel demand and travel behaviour management
A fragmented network for active modes (walking, cycling and micro-mobility) with poor (unsafe) connections resulting in safety issues, poor perception of the network and low active mode uptake.	Safety improvements for existing active mode facilities
Land Use.	Planned growth.

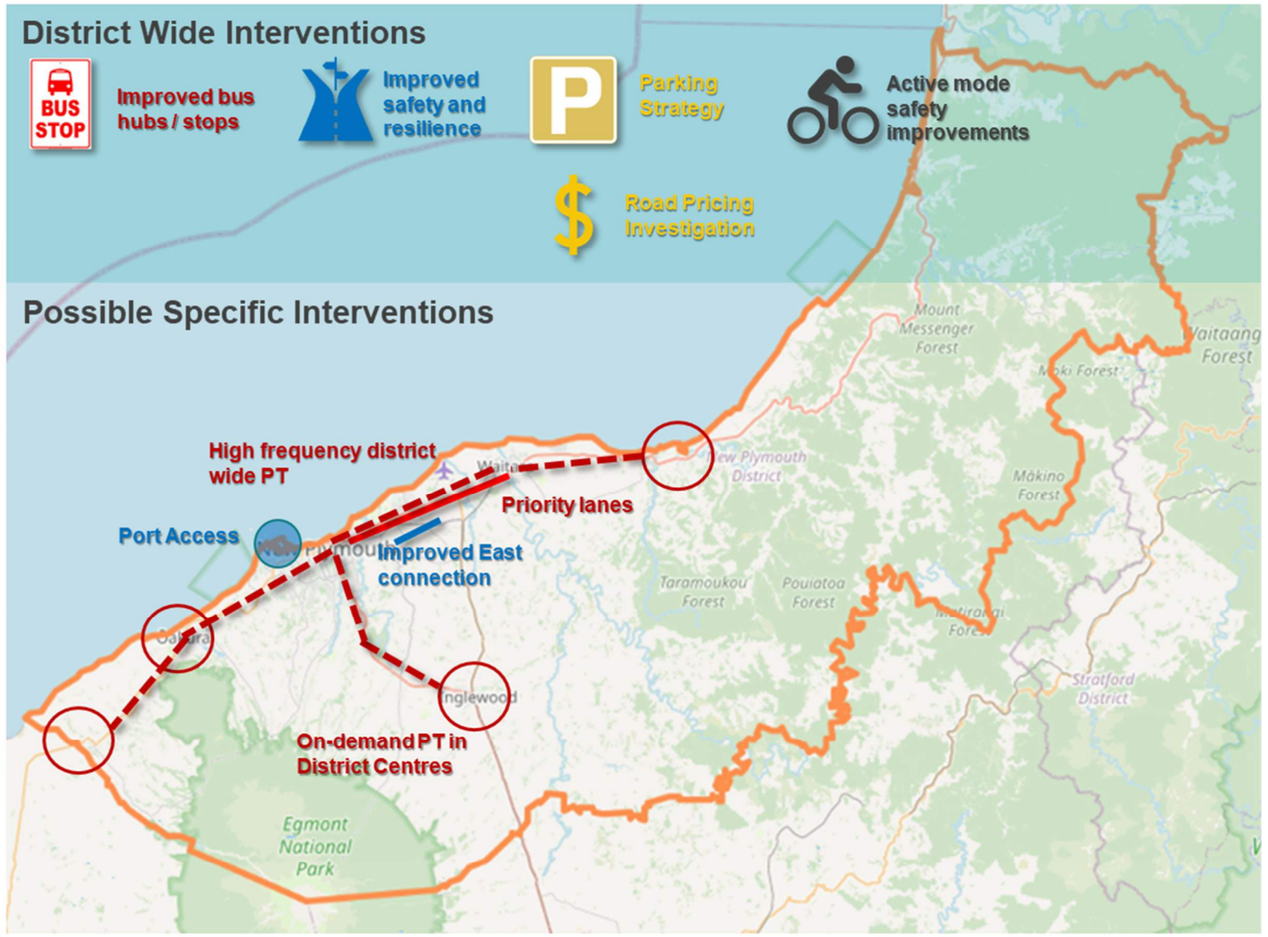


Figure 5-8: Short list ‘Connected urban centres’ programme unique interventions

Reduce Transport Emissions (Unique Interventions)

Maximise transport emissions reduction in response to Problem 1, 2 and 4 by pulling all possible levers (especially land use) but with limited focus on safety and liveability.

Problem	Intervention Category
Public transport is not competitive, convenient to access from active modes or perceived as a safe travel option resulting in low public transport use and poor customer experience.	Improve public transport infrastructure and travel time to make PT more attractive, and accessible
The network is configured to prioritise private vehicles (including freight) over other modes resulting in issues across the city and towns including severance, and declining amenity.	Reduce the fossil fuel energy use of the transport network
	Travel demand and travel behaviour management
Land Use.	Increase population density in areas close to key urban centres and destinations
	Reduce the need to travel where car alternatives are less viable

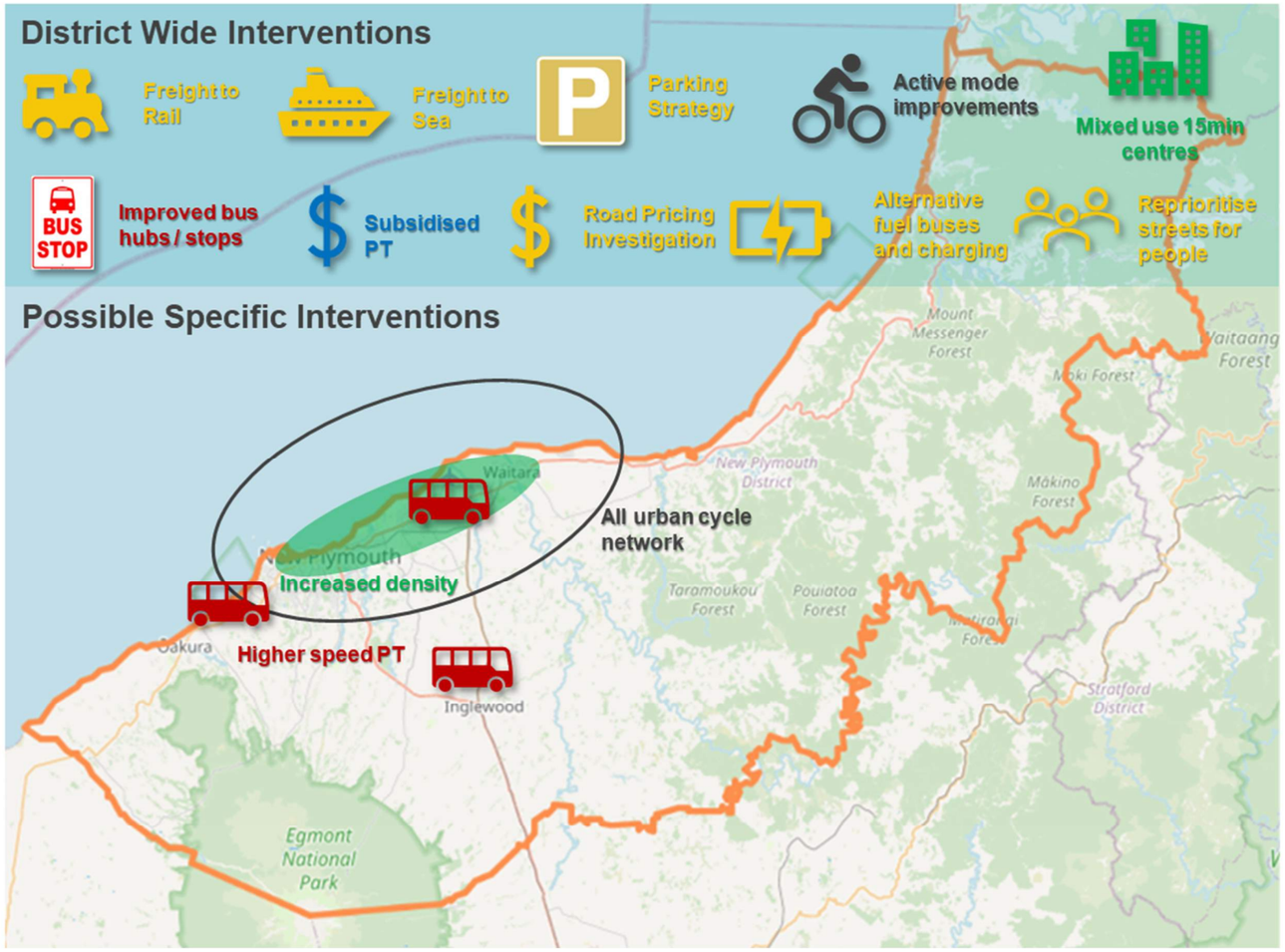


Figure 5-9: Short list ‘Reduce transport emissions’ programme unique interventions

Table 5-9: Intervention categories, short list programme options, and their alignment to the problems at short list stage

Problem statement	Intervention category	Number of intervention items	Long list programme options			
			Common interventions	Reduce transport emissions hybrid	Connected urban centres	Liveability
			Improved safety for all modes to tackle the existing problems areas on the network.	Maximise transport emissions reduction by pulling all possible levers, with limited focus on safety.	Creating local centres with active mode and high efficiency transport connections to New Plymouth CBD.	Improved liveability and accessibility of centres with a focus on people and active modes.
Public transport is not competitive with private vehicle travel or convenient to access from active modes resulting in low public transport use and poor customer experience.	Improve public transport frequencies, level of service, and reliability to make PT a more attractive option.	6	■	■	■	■
	Improve public transport infrastructure and travel time to make public transport more reliable.	7		■	■	
	Align public transport routes with key destinations and make public transport more accessible.	8	■	■	■	■
Most urban areas have low density residential developments that make access by public transport, walking and cycling difficult resulting in high dependency on private vehicles and increasing transport costs for the community that especially impact lower socio-economic groups.	Improve multi-modal access for communities outside of central New Plymouth.	19	■	■	■	■
	Resilient connections at network pinch points for all modes.	8			■	
The network is configured to prioritise private vehicles and road freight over other modes resulting in issues across the cities and towns including severance, and declining amenity.	Reduce the fossil fuel energy use of the transport network.	9		■		■
	Travel demand and travel behaviour management.	4		■	■	
	Reconfigure streets to align with One Network Framework outcomes and provide facilities for all modes.	15	■	■	■	■
	Safe road connections at network pinch points.	2				■
The current active mode transport networks are fragmented and have unsafe connections resulting in safety issues, poor perception of the network and low active mode uptake.	Safety improvements for existing active mode facilities.	11			■	■
	Improve attractiveness and personal safety of active mode facilities.	15	■	■	■	■
	Complete the urban cycle network.	10	■	■	■	■
Land Use	Increase population density in areas near key urban centres and destinations.	5		■		■
	Reduce the need to travel where car alternatives are less viable.	3		■		

Table 5-10: High level modelling inputs for short list programme options

Intervention category	Corresponding Ngāmotu STM network component	Input description	Programme option			
			Common interventions	Liveability	Connected urban area	Reduce transport emissions hybrid
Align public transport routes with key destinations and make public transport more accessible	Public transport	Extending TRC bus route 20 and improving headway to 30mins				
	Public transport	Implementing airport to CBD bus route with 30min headway				
	Public transport	Decreasing walking perception factors from 2 to 1.5				
Improve public transport infrastructure and travel time to make public transport more attractive, and accessible	Road	Implementing bus priority on bus routes				
	Public transport	Improving bus stop quality from Normal to Medium and bus stations from Medium to High				
	Public transport	Reducing bus route time factors by 50% for Route 20				
Improve public transport frequencies and level of service to make public transport a more attractive option	Public transport	Increasing bus service frequencies up by 400% (60 minutes to 15 minutes)				
Improve lower cost multi-modal access, especially for communities outside of central New Plymouth	Public transport	Reducing public transport fares by 50%				
	Cycle	Reducing cycle journey costs by 10%				
	Cycle	Improving off road trail perception factors by 20%				
Resilient connections at network pinch points for all modes	Road	Implementing additional capacity at certain intersections and midblock sections (delays capped at LOS E)				
Travel demand and travel behaviour management	Road	Increasing parking costs by up to 300% and expanding parking cost zone				
	Road	Increasing car journey costs by 100%				
Reconfigure streets to align with One Network Framework outcomes and provide facilities for all modes	Road	Reducing speed limits on certain road types				
	Cycle	Implementing speed management facilities on certain road types				
	Cycle	Implementing cycle lanes on arterial roads				
	Road	Reducing capacity on SH44 and increasing capacity on SH45				
	Road	Implementing ring route around New Plymouth				
Safety improvements on existing active mode facilities	Cycle	Upgrading existing cycle lanes to buffered lanes				
	Cycle	Implement shared paths on all off-road trails				
Improve attractiveness and accessibility of active mode facilities	Cycle	Uplifting cyclist confidence factors to High				
	Cycle	Reducing cycle journey costs for trips to the CBD by up to 20%				
Complete the urban cycle network	Cycle	Implement ‘enthused and confident’ and ‘interested but concerned’ cycle routes				

Intervention category	Corresponding Ngāmotu STM network component	Input description	Programme option			
			Common interventions	Liveability	Connected urban area	Reduce transport emissions hybrid
Increase population density in areas close to key urban centres and destinations	Land use assumptions	Redistributing most population growth in proposed future urban zones to areas with medium density zoning				
Reduce the need to travel where car alternatives are less viable	Land use assumptions	Reducing traffic growth between central New Plymouth and other townships from 2% per annum to 1%				
	Land use assumptions	Partially redistributing retail and commercial employment growth in Bell Block area to areas with medium density zoning				

Table 5-11: Short list programme 30-year non-discounted option costs

Short list programme option	P5 cost ($M)	P50 cost ($M)	P95 cost ($M)
Common interventions	498	582	773
Liveability	912	1,159	1,635
Connected urban centres	1,362	1,766	2,514
Reduce transport emissions hybrid	941	1,185	1,654

Table 5-12: Monetised transport benefits for programme option assessment

Transport benefit	Assessment approach
Traffic travel time and reliability	Value of travel time and time in congestion on modelled network calculated using variable trip matrix (VTM) method. Reliability benefit estimated as proportion of travel time benefit.
Vehicle operating costs	Value of base running costs, intersection idling costs, and additional running costs due to congestion of modelled network.
Public transport travel time and reliability	Value of travel time calculated using VTM method. Reliability benefit estimated as proportion of travel time benefit.
Crash reductions	Changes in midblock crashes calculated using crash rate analysis and changes in traffic volumes, speed limits, and safety interventions on modelled network. Changes in crashes at intersections and crossing points calculated using crash-by-crash analysis and changes in safety interventions at key locations.
Cycling travel time and user health	Value of travel time calculated using VTM method. Health benefits calculated using difference in cycle kilometres travelled new cycle trips.
External impacts of emissions	Value of emission damage costs calculated using modelled VKT outputs and NZTA vehicle emissions prediction model standard rates.

Table 5-13: Short list programme option modelled 40-year discounted benefits by transport benefit category

Transport benefit	Short list programme option benefit ($M)				Key Benefit Drivers
	Common interventions	Liveability	Connected urban centres	Reduce transport emissions hybrid	
Traffic travel time and reliability	56	350	291	294	The 'Liveability' programme derives the greatest road travel time benefits due to the provision of a ring route in 2053. The 'Connected urban centres' and 'Reduce transport emissions hybrid' programmes derive road travel time benefits from the provision of resilient connections at network pinch points.
Vehicle operating costs	1	-2	21	18	The 'Connected urban centres' and 'Reduce transport emissions hybrid' programmes derive VOC benefits from reductions in overall number of people driving due to larger mode shift from private vehicles to PT. This is driven by improved public transport infrastructure and travel times that make public transport a more attractive, accessible, and convenient option, as well as travel demand management in these programmes.
Public transport travel time and reliability	156	158	874	853	The 'Connected urban centres' and 'Reduce transport emissions hybrid' programmes derive the most PT benefits from increased patronage and reduced PT travel times. This is driven by improved public transport infrastructure and travel times that make public transport a more attractive, accessible, and convenient option, as well as travel demand management in these programmes.
Crash reductions	16	37	87	36	Speeds on local streets are reduced in all programmes as part of reconfiguring streets to align with One Network Framework

Transport benefit	Short list programme option benefit ($M)				Key Benefit Drivers
	Common interventions	Liveability	Connected urban centres	Reduce transport emissions hybrid	
					outcomes and providing facilities for all modes, which leads to crash reduction benefits across all programmes. The 'Connected urban centres' programme derives the most benefits here, likely from lower overall traffic flows due to mode shift from private vehicles to PT. This is driven by improved public transport infrastructure and travel times that make public transport a more attractive, accessible, and convenient option, as well as travel demand management in these programmes.
Cycling travel time and user health	736	912	890	844	Significant benefits from increased cycling mode share are apparent across all programmes. All options improve access to lower cost multi-modal options, improve attractiveness and accessibility of active mode facilities, and complete the proposed urban cycle network by 2053. The 'Liveability' and 'Connected urban centres' programmes provide safety improvements for existing active mode facilities which generates additional benefits compared to the other programmes.
External impacts of emissions	4	4	14	13	The 'Connected urban centres' and 'Reduce transport emissions hybrid' programmes derive benefits from reductions in emissions due to mode shift from private vehicles to PT. This is driven by improved public transport infrastructure and travel times that make public transport a more attractive, accessible, and convenient option, as well as travel demand management in these programmes.

Table 5-14: Short list economic analysis sensitivity tests

Category	Sensitivity test	Description
Discounting factor	3% and 6%	Standard sensitivity test on 4% discounting factor as recommended in the NZTA MBCM.
Programme option costs	P5 and P95 costs	Variation on expected (P50) costs as defined by the Beca costing team. Based on the high-level nature of the costing process. For exact cost values see the supplementary cost estimation report.
Significant benefit sources	-20% and +20% for crash reduction benefits estimated from CAS data	Crash reductions used in this analysis are from SSI toolkit and crash compendium estimates, which are based on nationwide and some international evidence. Exact impact for the New Plymouth context is not well known, and deviation from the estimated reduction is likely.
	-30% and +10% for: • Crash reduction benefits estimated from changes in VKT • Public transport benefits (including travel time and reliability) • Cycling benefits (including travel time and health benefits to users)	Modelled VKT reductions and mode shift risks are likely to be more on the downside.

Table 5-15: Short list programme option benefit cost ratio (BCR) values from 40-year economic analysis

Short list programme option	BCR	Sensitivity testing	
		Lowest BCR	Highest BCR
Common interventions	2.6	1.1	3.7
Liveability	2.3	1.0	3.4
Connected urban centres	2.5	1.1	3.7
Reduce transport emissions hybrid	3.4	1.5	4.9

5.5 Short list programme assessment

5.5.1 Short list assessment criteria

The short list programme options were assessed against the same criteria and scoring system as the long list programme options, as shown in **Table 5-5** and **Table 5-6**. However, 'Value for money' was also included

for assessment at this stage as indicative costs and benefits had been calculated. The MCA scoring at this stage was informed by the modelling outputs and measured investment KPIs from this. The measured investment KPI results for the short list programme options in the medium-term and long-term are given in **Table 5-16**.

5.5.2 Short list MCA workshop

The short list MCA workshop was held on the 27th of July 2023 and was attended by the project partners.

The purpose of the short list MCA workshop was to:

- Discuss initial MCA scoring and modelling for the short list programme options,
- Identify the emerging preferred programme option.

Attendees were led through a presentation about the MCA scoring, modelling results, and the next steps.

Key outcomes from the first short list workshop:

- General agreement around the emerging preferred option of ‘Connected urban centres’.
- Confirm some of the observed modelling outcomes were an accurate representation of real-life conditions.
- Discuss the best way to gather data for the KPIs that have not yet been measured.

Table 5-16: Measured investment KPI results for the short list programme options at model year 2035 and 2053

Model Run	Programme option	Improve public transport network access, reliability, and travel times.			Reduce private vehicle reliance and transport related emissions and increase mode shift.					Positive impact on local centres, network productivity and utilisation.			Improve multi-modal access to key amenity locations.	Improve the safety and attractiveness of active mode networks for all users.	
		KPI 1: PT travel times (Average of 4 Origins to CBD in mins)	KPI 3: % of population within 400 metres PT walking catchments.	KPI 4a and 4b: PT mode share for AM journey to work + school trips	KPI 5: Tonnes of CO2E (change compared to do-minimum)	KPI 6a: AM JTW by light vehicle mode share (change compared to do-minimum)	KPI 6b: VKT (change compared to do-minimum)	KPI 7: PT mode share for journey to work trips	KPI 8: PT mode share for journey to school trips	KPI 10: PT travel time minus car travel time (Average of 4 Origins to CBD in mins)	KPI 13a: % of freight on non-arterial corridors	KPI 13b: Freight travel times from east to port (change compared to do-minimum in mins)	KPI 11: % of residents living within 400m of local centre	KPI 14: Annual deaths and serious injuries for cyclists	KPI 15: % of primary cycling network that is safe and separated
Medium-term	Do-minimum	14.4	57.2%	0.7% 13.9%	-	-	-	0.7%	13.9%	17	76.4%	-	10.2%	2.88	13%
	Common interventions	14.4	57.2%	1.4% 14.9%	-1.1%	-1%	-1.2%	1.4%	14.9%	14	76.5%	-0.1	10.2%	2.42	16%
	Liveability	14.4	57.2%	1.4% 15.7%	-1.2%	-1%	-1.4%	1.4%	15.7%	14	76.5%	-0.1	10.2%	1.81	23%
	Connected urban centres	14.3	57.2%	6.4% 16.9%	-3.9%	-7%	-3.5%	6.4%	16.9%	12	76.8%	-0.1	10.2%	1.66	23%
	Reduce transport emissions hybrid	14.3	57.2%	6.5% 17.8%	-3.0%	-7%	-3.4%	6.5%	17.8%	12	76.8%	-0.3	10.2%	1.59	23%
Long-term	Do-minimum	14.9	55.5%	0.7% 13.5%	-	-	-	0.7%	13.5%	16.7	75.1%	-	9.6%	3.72	13%
	Common interventions	14.8	55.5%	2.5% 18%	-2%	-3%	-2%	2.5%	18.0%	12.8	75.3%	-0.3	9.6%	2.18	25%
	Liveability	14.6	57.5%	2.4% 18.9%	0%	-4%	-1%	2.4%	18.9%	13.3	79.9%	-1.0	10.5%	2.58	28%
	Connected urban centres	14.6	55.5%	15.7% 26.7%	-10%	-16%	-11%	15.7%	26.7%	6.8	77.9%	-1.2	9.6%	1.05	29%
	Reduce transport emissions hybrid	14.3	57.5%	14.7% 28.2%	-10%	-16%	-11%	14.7%	28.2%	6.8	76.3%	-1.7	10.5%	0.98	29%

Table 5-17: Short list MCA raw scores and weighted scores

Programme option	Investment objectives					Critical success factors			Impacts and opportunities				Weighted score
	Improve public transport network access, reliability, and travel times	Reduce private vehicle reliance and transport related emissions and increase mode shift.	Positive impact on local centres, network productivity and utilisation.	Improve multi-modal access to key amenity locations.	Improve the safety and attractiveness of active mode networks for all users (eg children, elderly, and people with disabilities).	Technical achievability	Affordability	Value for money	Te Ao Māori	Social and cultural impacts	Climate change mitigation	Climate change adaptation	
Common interventions	1	1	0	1	1	-1	-1	1	1	2	0	1	0.74
Liveability	1	1	0	2	3	-2	-2	1	3	2	0	2	1.12
Connected urban centres	2	2	1	1	3	-1	-3	1	2	3	3	2	1.69
Reduce transport emissions hybrid	2	2	2	2	3	-2	-2	2	1	0	3	2	1.49

5.5.3 Short list programme scoring

Raw scoring and the final weighted score of the short list programme options is shown in **Table 5-17**. Full scoring rationale is given in **Appendix F**.

The initial weighted scoring identified 'Connected urban centres' as the highest performing programme.

5.5.4 Short list sensitivity testing

The results of the sensitivity testing are shown in **Table 5-18.** 'Connected urban centres' was still the highest performing programme.

Table 5-18: Short list programme option rankings from MCA sensitivity testing

Programme option	Baseline weighting	Sensitivity scenario				Average ranking
		Access 1	Access 2	Climate 1	Climate 2	
Common interventions	4	4	4	4	4	4
Liveability	3	2	2	3	3	2.6
Connected urban centres	1	1	1	2	2	1.4
Reduce transport emissions hybrid	2	3	3	1	1	2.0

From this process, 'Connected urban centres' was taken through to the preferred programme option stage.

5.5.5 Short list stakeholder consultation

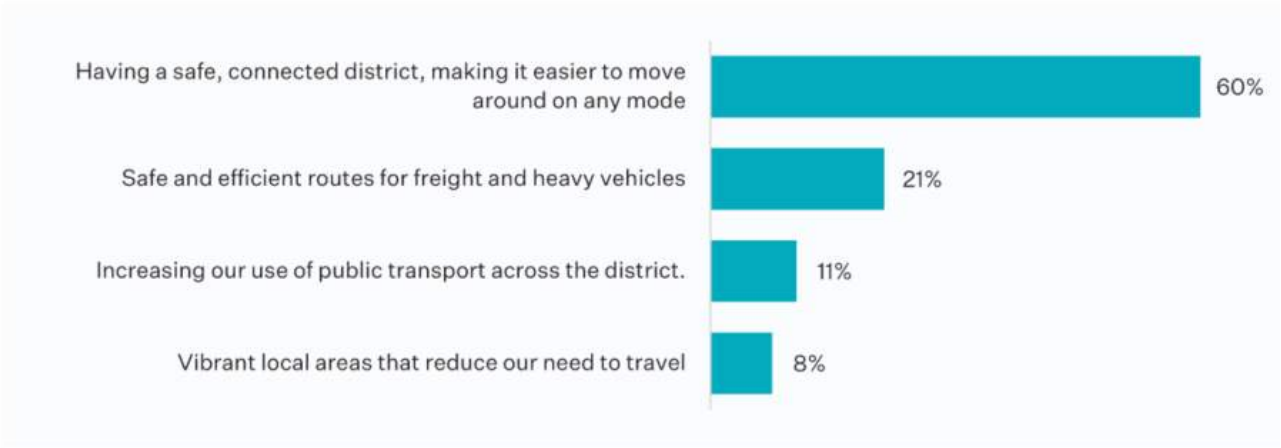
Stakeholder consultation was carried out by NPDC with some of the key project stakeholder groups between July and September 2023. Generally, the views that were shared aligned with the existing intervention categories and so existing interventions within each of the short list programme options covered off transport network priorities the groups would like to see action on. This feedback is summarised in **Appendix I**.

5.5.6 Short list community consultation

Public consultation with the New Plymouth District community was carried out by Research First on behalf of NPDC in August and September 2023, with a full copy provided in **Appendix I**. This was carried out using two methods:

- A representative survey of the residents of the district aged 18 years and older on age, gender, ethnicity, and location with 500 responses.
- An open submission via a digital public access open link survey with 305 responses.

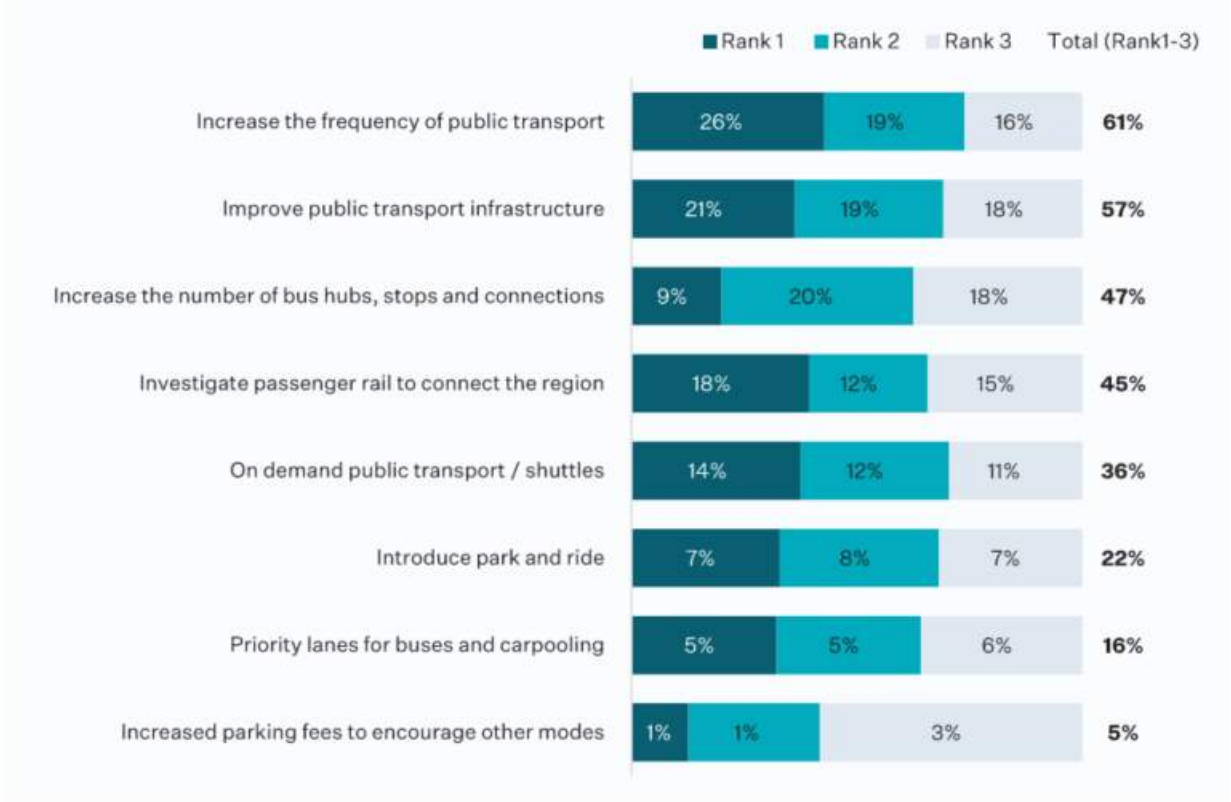
The first question focussed on the key priority areas for the district's transport network, which is intended to be at a programme option level rather than focus on specific interventions. **Figure 5-10** below shows the results of the survey. This indicates that at a high-level, the general transport priorities align with the Connected Urban Centres and Liveability options, rather than the Reduce Transport Emissions option.



Q. Considering the four broad themes below, what is your key priority across the district's transport network?
Base: n=500 (representative sample only).

Figure 5-10: Key priority areas

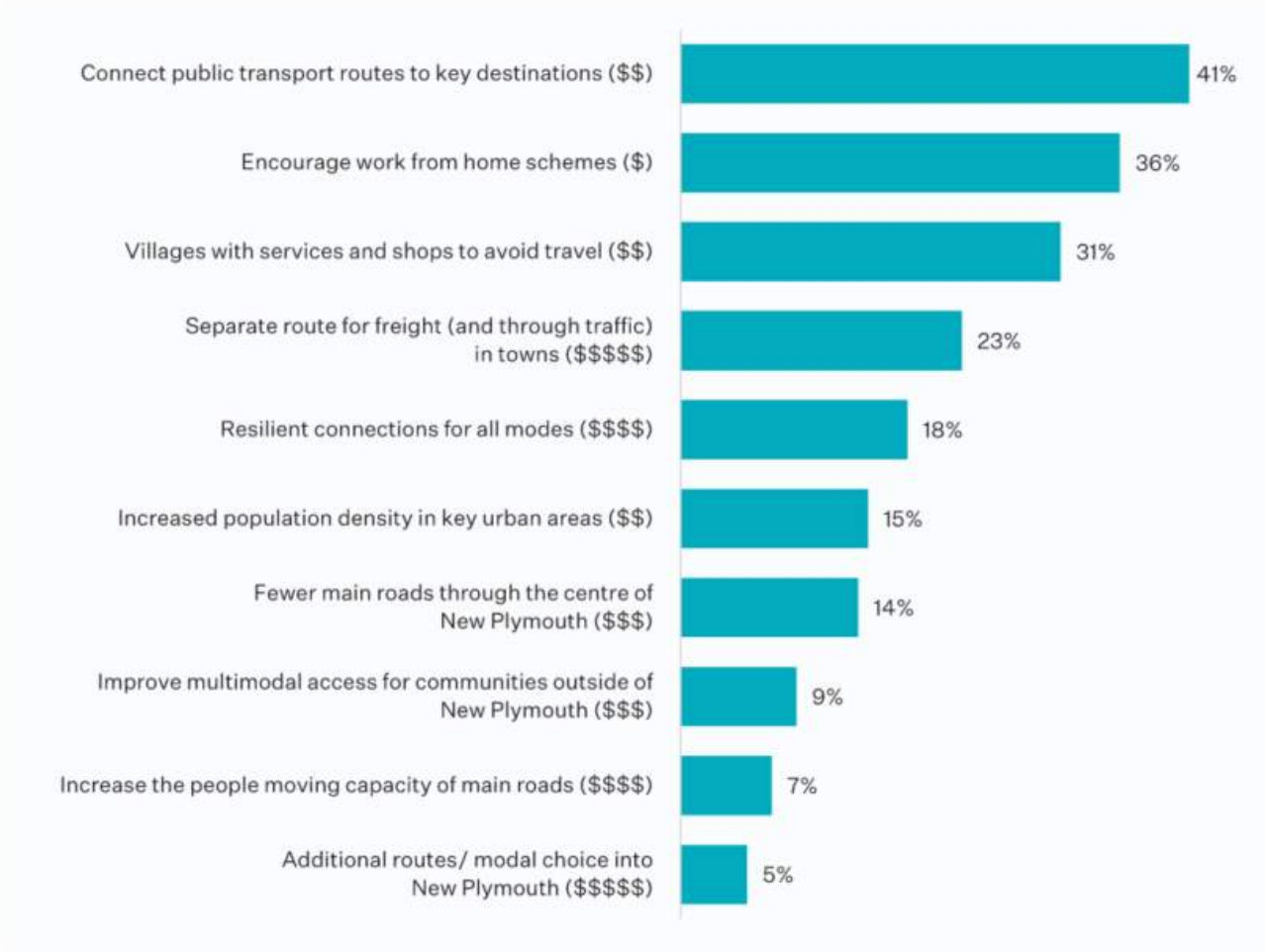
The second question asked respondents to rank the top three priorities for public transport initiatives, which aligns with Objective 1 of the PBC. The highest ranked initiatives as shown in **Figure 5-11** were more frequent PT, improved PT infrastructure and passenger rail to connect the region, and when cost was considered this top three remained the same. This ranking best aligns with the Connected Urban Centres and Reduce Transport Emissions programme options.



Q. The Council wishes to understand how it can best improve public transport. Of the following public transport initiatives, please rank what you consider to be the 3 top priorities for the Council. Please rank the following initiatives by entering 1, 2 and 3 to indicate your top 3 priorities for the Council – where 1 is the topmost priority. Base: n=500.

Figure 5-11: Ranking for public transport initiatives (% respondents ranked 1 to 3)

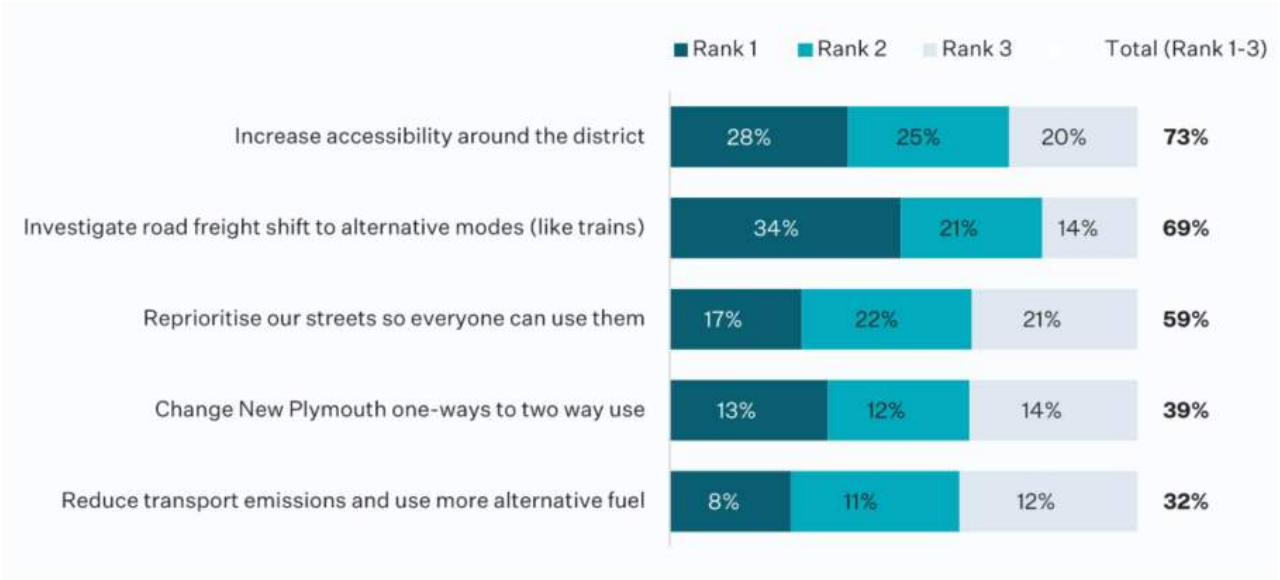
The third question asked respondents to rank how to best improve access to key amenity areas, which aligns with Objective 3 of the PBC. Assigning relative costs to the initiatives significantly influenced the prioritisation, with the highest ranked initiatives as shown in **Figure 5-12** being better connected PT, encouraging work from home schemes and villages with services and shops to avoid travel. This displaced a separate route for freight and through traffic in towns and resilient connections for all modes from the top three before cost was considered. This ranking best aligns with the Reduce Transport Emissions programme option.



Q. An indicative cost ($) has now been added to each initiative. How would you prioritise the following initiatives to improve access to key amenities (e.g., schools, the coast, parks), without going over the allocated budget? You have a maximum of 6 ($$$$$$). Base: n=500.

Figure 5-12: Ranking for initiatives to improve access to key amenities (post relative cost being applied)

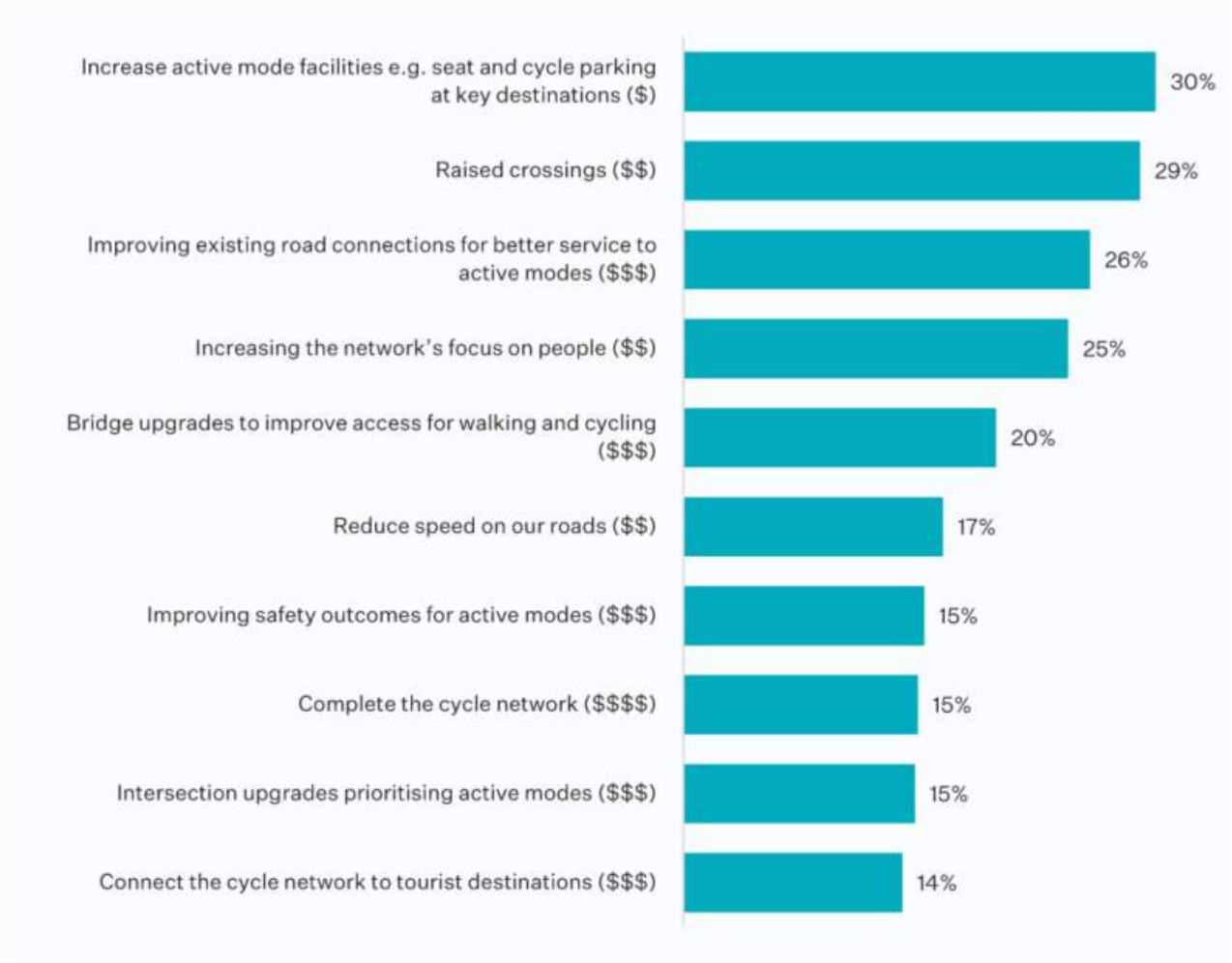
The fourth question asked respondents to rank how to best reduce reliance on private vehicles, which aligns with Objective 2 of the PBC. The highest ranked initiatives as shown in **Figure 5-13** were shifting road freight to alternative modes, increasing accessibility around the district and reprioritising streets so everyone can use them, and when cost was considered this top three remained the same. This ranking best aligns with the Liveability and Reduce Transport Emissions programme options.



Q. The Council wishes to understand how it can reduce our reliance on private vehicles (including freight). Of the following initiatives, please rank what you consider to be the 3 top priorities for the Council. Please rank the following initiatives by entering 1, 2 and 3 to indicate your top 3 priorities for the Council. Base: n=500.

Figure 5-13: Ranking for initiatives to reduce reliance on private vehicles (% respondents ranked 1 to 3)

The fifth question asked respondents to rank how to best improve the fragmented active travel network, which aligns with Objective 5 of the PBC. Assigning relative costs to the initiatives influenced the prioritisation, with the highest ranked initiatives as shown in **Figure 5-14** being increasing active mode end of trip facilities (e.g., seating and cycle parking), raised crossings and improving existing road connection for active modes. This displaced bridge upgrades from the top three before cost was considered. This ranking best aligns with the Connected Urban Centres programme option.



Q. An indicative cost ($) has now been added to each initiative. How would you prioritise the following initiatives, to improve our active travel network and encourage more people to walk and cycle, without going over the allocated budget? You have a maximum of 6 ($$$$$$) to spend on the following initiatives. Base: n=500.

Figure 5-14: Ranking for initiatives to improve the active travel network (post relative cost being applied)

The final question asked respondents to score their support for road upgrades for those walking and cycling, with 47% being supportive and 28% being neutral. With respect to general comments, the key themes were:

- Support was mixed for walking and cycling initiatives,
- Repair the existing roads being starting new projects,
- Improve and explore other modes of PT first and shift freight; and,
- Take a balanced approach that considers all road users.

Overall, the community showed the most alignment with the Connected Urban Centres and the Reduce Transport Emissions programme options, which supports the outcomes of the MCA scoring.

PART C – PREFERRED PROGRAMME

6 Preferred Programme Development

6.1 Improving affordability and outcomes with a core preferred programme

Considering budgetary constraints on delivering the current NPDC long-term plan, NPDC and the project partners agreed to review the scheduling and scope of costed interventions from the short list stage to create a 'core' preferred programme from the short list 'Connected urban centres' programme. The aim of this refinement was to improve programme affordability while still delivering similar outcomes. This was achieved by:

- Rescheduling the costed interventions to smooth the annual and total programme costs while maintaining the critical path of the costed interventions to deliver the modelled outcomes.
- Descoping some of the higher-cost interventions to deliver similar outcomes with better value for money by considering the likely triggers for these interventions and testing different model scenarios. The key de-scoping changes are shown below in **Table 6-1**.

Table 6-1: De-scoping changes made to create the core preferred programme

ID	Description	Scope Change	Rationale
ID6	High speed PT to key communities outside New Plymouth	Removal from the core programme	It is not expected the populations on the route to Waitara will reach sufficient critical mass in the time period this PBC is focussing on based on other New Zealand projects
ID100	A second route into New Plymouth from the east to reduce severance	Reduction from a four lane road to a two lane road	Significant growth in the Smart Road area is not planned until close to 2053
ID142	More active mode connections across high-speed state highways in fringe areas	Reduce the scope from large underpasses to at-grade or smaller underpass solutions	Reduce cost but deliver similar outcomes.
ID143	Extend the coastal walkway to the southern coastal areas of the district	End at Ōakura rather than Ōkato	Significant population growth in Ōkato is not expected by 2053

To further support programme outcomes, the PBC team and partners agreed that increased travel demand management and land use interventions should be included in the core preferred programme. The high-level inclusions to the scope of interventions in the core preferred programme are described in **Table 6-2**.

Table 6-2: Inclusions to core preferred programme option from short list stage

Intervention hierarchy category	Lever	Input description	Related intervention category
Integrated planning	Land use	Redistributing most population growth in proposed future urban zones to areas with medium density zoning	Increase population density in areas close to key urban centres and destinations
Manage demand	Speed limit changes	Reducing speed limits on more roads, including some rural roads where it will significantly improve safety	Reconfigure streets to align with One Network Framework outcomes and provide facilities for all modes
	Parking costs	Increasing parking costs and the proportion of people who pay for parking	Travel demand and travel behaviour management

The composition and scheduling of interventions within the core preferred programme *first* focuses on studies and cost-effective interventions that sit higher up the intervention hierarchy (see **Figure 2-1**) to deliver outcomes *before* considering new infrastructure further in the future. This focus is demonstrated through the non-discounted cashflow categorised by intervention hierarchy in **Figure 6-1**. Furthermore, the analysis of core preferred programme interventions by intervention hierarchy and the proposed high-level scheduling of the interventions within the core preferred programme is given in **Appendix E**.

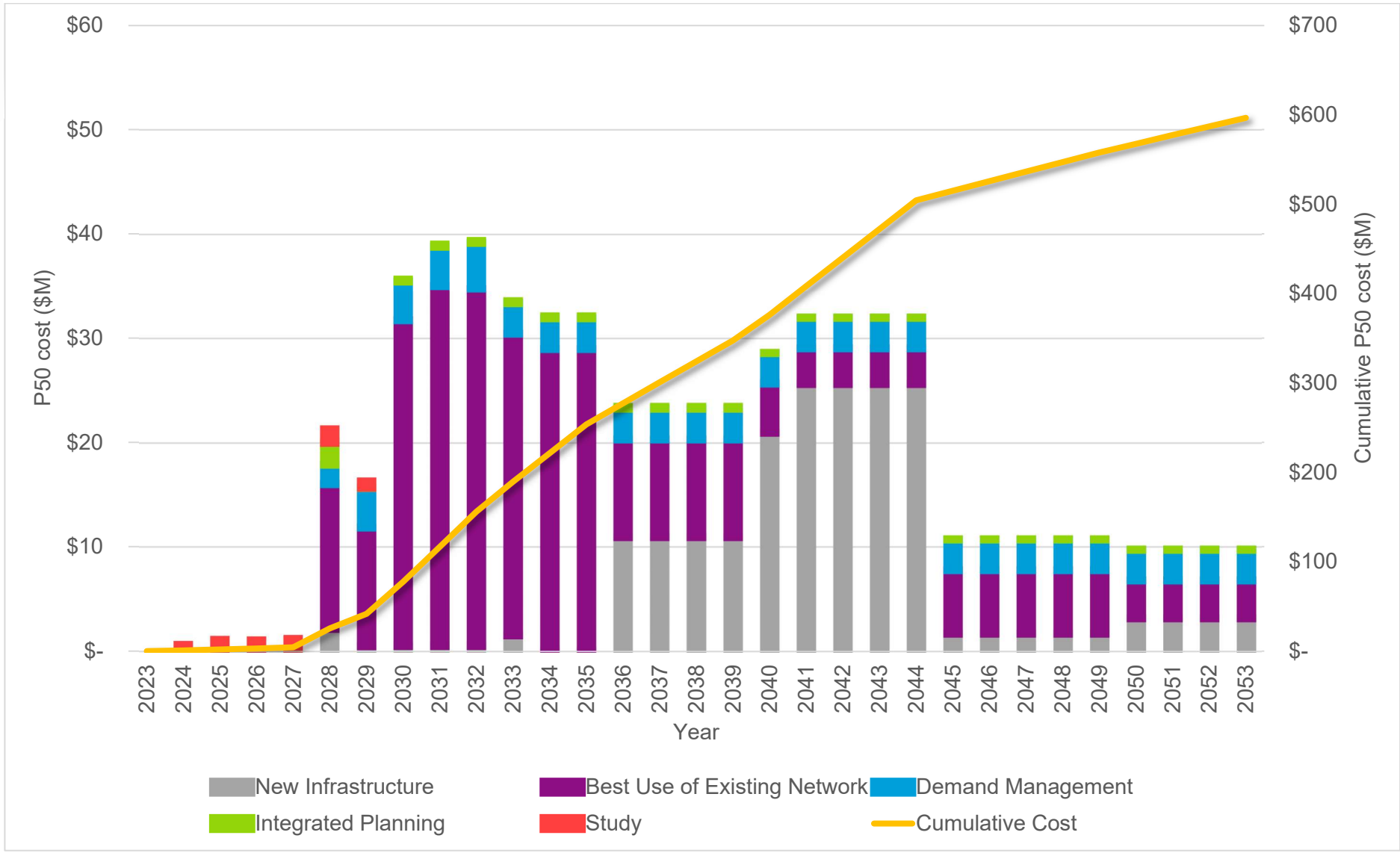


Figure 6-1: Core preferred programme 30-year non-discounted cashflow by study and NZTA Intervention Hierarchy costs

6.2 Feedback on the core preferred programme

Following the confirmation of the core preferred programme, the previous community feedback was reviewed at an initiative level to confirm alignment with the community views that were shared earlier on. As summarised in **Table 6-3**, the top ranked initiatives have been included in the core preferred programme and some of the lower ranked initiatives have been delayed to the long-term pending feasibility studies.

Table 6-3: Alignment between the core preferred programme and the community consultation

Question	Initiative	Community Ranking	Alignment with Preferred option
Key transport priorities	Having a safe, connected district, making it easier to move around on any mode (60%)	**High**	The core programme covers improvements for all modes.
	Vibrant local areas that reduce our need to travel (8%)	**Low**	Reducing the need to travel through creating urban centres with mixed used developments is included as it aligns with the PBC objectives but is delayed until the long term.
Initiatives to improve public transport	Increase PT frequency (55%)	**High**	These are included in the core programme.
	Investigate passenger rail (54%)	**High**	
	Improve PT infrastructure (48%)	**High**	
	Introduce park and ride (16%)	**Low**	This is included in the core programme in the short term as a travel behaviour management intervention.
	Increased parking fees (8%)	**Low**	This may be identified in the parking study proposed in the short term.
	Priority lanes for buses and car pooling (7%)	**Low**	This is included in the core programme as it aligns with the PBC objectives but is delayed until the long term.
Improve access to key amenity areas	Connect public transport routes to key destinations (41%)	**High**	This is included in the core programme.
	Encourage work from home schemes (36%)	**High**	
	Villages with services and shops to avoid travel (31%)	**High**	
	Improve multimodal access for communities outside of New Plymouth (9%)	**Low**	This is included in the core programme across all time periods as it aligns with the PBC objectives.
	Increase the people moving capacity of main roads (7%)	**Low**	These are included in the core programme, but the large-scale

Question	Initiative	Community Ranking	Alignment with Preferred option
	Additional routes/ modal choice into New Plymouth (5%)	Low	investments are delayed until the long-term pending studies.
Reduce reliance on private vehicles	Increase accessibility around the district (70%)	High	This is included in the core programme.
	Investigate road freight shift to alternative modes (like trains) (67%)	High	This is not included in the core programme, but other initiatives are included to reduce heavy vehicle traffic within urban areas.
	Change New Plymouth one-ways to two-way use (26%)	Low	This is included in the core programme, but the large-scale investments are delayed until the long-term pending studies.
	Reduce transport emissions and use more alternative fuel (24%)	Low	This is not included in the core programme.
Encourage active travel modes	Increase active mode facilities e.g., seat and cycle parking at key destinations (30%)	High	These are included in the core programme.
	Raised crossings (29%)	High	
	Improving existing road connections for better service to active modes (26%)	High	
	Complete the cycle network (15%)	Low	This is included in the core programme as it aligns with the PBC objectives but is delayed until the long term.
	Intersection upgrades prioritising active modes (15%)	Low	This is included in the core programme as it aligns with the PBC objectives.
	Connect the cycle network to tourist destinations (14%)	Low	This is included in the core programme, but the large-scale investments are delayed until the medium-term pending studies.

6.3 Core preferred programme assessment

The preferred and short list programme costs, modelled benefits, and BCR values are given in **Table 6-4, Table 6-5**, and **Table 6-6** respectively. A summary comparison of the short list and core preferred programme assessments is given in **Table 6-7**. Additionally, the core preferred programme KPI results are shown in **Table 6-8**. It is noted that the BCR and KPI results are slightly different to those reported for the 'Connected urban centres' programme in **Section 5.4** and **Section 5.5**, respectively, because the core preferred programme has been further developed from the short list stage to support programme outcomes as per **Section 6.1**.

Table 6-4: Programme option 30-year non-discounted costs

Assessment stage	Programme option	P5 cost ($M)	P50 cost ($M)	P95 cost ($M)
Short list	Common interventions	498	582	773
	Liveability	912	1,159	1,635
	Connected urban centres	1,362	1,766	2,514
	Reduce transport emissions hybrid	941	1,185	1,654
Preferred	**Core programme**	**485**	**597**	**840**

Table 6-5: Programme option modelled 40-year discounted benefits by transport benefit category

Transport benefit	Short list				Preferred
	Common interventions	Liveability	Connected urban centres	Reduced transport emissions hybrid	Core programme
Traffic travel time and reliability	56	350	291	294	**395**
Vehicle operating costs	1	-2	21	18	**34**
Public transport travel time and reliability	156	158	874	853	**1,192**
Crash reductions	16	37	87	36	**137**
Cycling travel time and user health	736	912	890	844	**882**
External impacts of emissions	4	4	14	13	**20**

Table 6-6: Programme option benefit cost ratio (BCR) values from 40-year economic analysis

Assessment stage	Programme option	BCR	Sensitivity testing	
			Lowest BCR	Highest BCR
Short list	Common interventions	2.6	1.1	3.7
	Liveability	2.3	1.0	3.4
	Connected urban centres	2.5	1.1	3.7
	Reduce transport emissions hybrid	3.4	1.5	4.9
Preferred	**Core programme**	**6.8**	**3.0**	**10.2**

Table 6-7: Summary assessment comparison of short list options and core preferred programme

Assessment Component		Short list				Preferred
		Common interventions	Liveability	Connected urban centres	Reduced transport emissions hybrid	Core programme
MCA *(see 5.5.3)*	**IO1: Improve public transport network access, reliability, and travel times.**	Minor Positive	Minor Positive	Moderate Positive	Moderate Positive	*Intervention scheduling and scope closely aligned with 'Connected urban centres' option.*
	IO2: Reduce private vehicle reliance and increase mode shift.	Minor Positive	Minor Positive	Moderate Positive	Moderate Positive	
	IO3: Positive impact on local centres, network productivity and utilisation.	Neutral	Neutral	Minor Positive	Moderate Positive	
	IO4: Improve multi-modal access to key amenity locations.	Minor Positive	Moderate Positive	Minor Positive	Moderate Positive	
	IO5: Improve the safety and attractiveness of active mode networks.	Minor Positive	High Positive	High Positive	High Positive	
	Critical Success Factors	Minor Negative	Moderate Negative	Moderate Negative	Minor Negative	
	Impacts and Opportunities	Minor Positive	Moderate Positive	High Positive	Moderate Positive	
Stakeholder Alignment *Consultation results (see 5.5.5 and 5.5.6)*		Low	Medium	High	High	
30-Year Cost Range ($M) *P5-P95 costs (see Table 6-4)*		498-773	912-1,635	1,362-2,514	941-1,654	**485-840**
BCR Range *Sensitivity testing (see Table 6-6)*		1.1 – 3.7	1.0 – 3.4	1.1 – 3.7	1.5 – 4.9	**3.0 – 10.2**

Table 6-8: Measured investment KPI results for the do-minimum and core preferred programme at modelled years

Investment objective	KPI	Medium-term		Long-term	
		Do Minimum	Preferred	Do Minimum	Preferred
Improve public transport network access, reliability, and travel times.	1: PT travel times (Average of 4 Origins to CBD in mins)	14.4	14.5	18.1	13.5
	3: % of population within 400 metres PT walking catchments.	57.2%	57.2%	55.5%	57.5%
	4a: PT mode share for AM journey to work trips	0.7%	6.4%	0.7%	18.9%
	4b: PT mode share for AM journey to school trips	13.9%	17.7%	13.5%	27.8%
Reduce private vehicle reliance and transport related emissions and increase mode shift.	5: Tonnes of CO2E (change compared to do-minimum)	-	-6%	-	-15%
	6a: AM JTW by light vehicle mode share (change compared to do-minimum)	-	-7%	-	-20%
	6b: VKT (change compared to do-minimum)	-	-4%	-	-14%
	7: PT mode share for journey to work trips	0.7%	6.4%	0.7%	18.9%
	8: PT mode share for journey to school trips	13.9%	17.7%	13.5%	27.8%
Positive impact on local centres, network productivity and utilisation.	10: PT travel time minus car travel time (Average of 4 Origins to CBD in mins)	17	13	16.7	8.7
	13a: % of freight on non-arterial corridors	76.5%	76.1%	75.1%	77.9%
	13b: Freight travel times from east to port (change compared to do-minimum in mins)	-	-0.1	-	-1.6
Improve multi-modal access to key amenity locations.	11: % of residents living within 400m of local centre	10.2%	10.2%	9.6%	10.5%
Improve the safety and attractiveness of active mode networks for all users.	14: Annual deaths and serious injuries for cyclists	2.88	1.4	3.72	0.92
	15: % of primary cycling network that is safe and separated	13%	23%	13%	29%

7 Assessment Profile

An assessment of the indicative Strategic Fit and Effectiveness has been undertaken in accordance with the current NZTA Investment Prioritisation Method (IPM)[45]. There are three components the assessment: GPS Alignment, Scheduling and Efficiency, which get assigned a rating based on the criteria of each component.

7.1 GPS Alignment

The problems and benefits identified through the ILM and their alignment with the GPS 2024 are shown in **Table 7-1.** An overall GPS alignment rating of *Medium* for the core preferred programme is considered appropriate.

[45] https://www.nzta.govt.nz/assets/P-and-I-Knowledge-Base/docs/2024-27-IPM.pdf

Table 7-1: Alignment of core preferred programme benefits to GPS 2024 priorities

GPS 2024 Alignment Factor	Strategic Case Objective	Benefit Management Framework Cluster	Rating and Criteria Met	Justification
Economic Growth and Productivity	Improved multi-modal access to key amenity locations. Improve public transport network access, reliability, and travel times. Positive impact on local centres, network productivity and utilisation.	Journey times and travel time reliability.	*Low* – A >5% improvement in travel time reliability and/or trip time for freight on a road.	Freight travel times from east to port through New Plymouth are expected to reduce by 7% by 2053.
		Access to key destinations that contribute to economic growth.	*Medium* – Contributes to transport network efficient access to/from regionally important economic growth locations with >1 minute travel time saving.	Freight travel times from east to port through New Plymouth is estimated to reduce by 1.6 minutes by 2053. Average travel time by public transport from four different origins (Bell Block, Highlands Park, Hurdon, and Spotswood) to the CBD is estimated to reduce by more than 3 minutes and up to 6 minutes by 2053.
		Public transport patronage.	*Medium* – Public transport infrastructure or services increases public transport patronage 5-15% by 2027 and maintains or increases farebox recovery.	Public transport infrastructure and services are proposed that increase public transport patronage by 28% from 2023 to 2026. Fare changes are not proposed, so farebox recovery is not expected to decrease.
		Walking and cycling usage.	*Low* – Walking and cycling improvement increases economic growth or improves safety and there is an existing or reliably forecast demand for the improvement.	Estimated total reduction in cyclist DSIs of 51 over the 30-year programme timeframe (2023 to 2053) because of new infrastructure and safety improvements. Furthermore, these interventions enable a forecasted increase in daily cycle trips of 135% over the 30-year programme timeframe.
		Impact on access to opportunities.	*Low* – Improves the condition of the transport road network to the ONF level of service through investment in new assets.	Interventions are proposed that improve the condition of the transport road network to the ONF level of service through integrated planning, demand management, and best use of the existing network.

GPS 2024 Alignment Factor	Strategic Case Objective	Benefit Management Framework Cluster	Rating and Criteria Met	Justification
Increased Maintenance and Resilience	Improved multi-modal access to key amenity locations. Improve public transport network access, reliability, and travel times.	Resilience.	*Low* – Negligible resilience risk reduction.	Interventions are proposed that improve network resiliency primarily through improved transport choices across the network.
Safety	Improve the safety and attractiveness of active mode networks for all users (e.g., children, elderly, and people with disabilities) leading to decreased crashes.	Impact on social cost 1.1 and incidences of crashes 1.2.	*Medium* – DSI reduction per $100m >5 in a medium-high collective risk corridor or intersection and doesn't adversely affect productivity in the corridor.	Estimated total reduction in cyclist DSIs of 51 over the 30-year programme timeframe (2023 to 2053) because of new infrastructure and safety improvements. This leads to a cyclist DSI reduction per $100m >8 for the entire programme cost across the New Plymouth network, which includes medium, medium-high, and high collective risk corridors. Various other safety improvements are proposed for other modes, including in the *resilient connections at network pinch points for all modes* category (safety improvements on SH3, SH3A and SH45 would be progressed). Considering improvements in travel times and congestion from modelling outputs, all proposed safety interventions are not expected to adversely affect productivity on the network.
Value for Money	Improve public transport network access, reliability, and travel times. Positive impact on local centres, network productivity and utilisation.		*High* – >5% reduction in average travel time and/or >5% improvement in travel time reliability for general traffic.	Average travel time for private vehicles and public transport from four different origins (Bell Block, Highlands Park, Hurdon, and Spotswood) to the CBD is estimated to reduce by 6% and 26% respectively by 2053.

7.2 Scheduling

The scheduling factor has two criteria: *criticality* and *interdependency*. Criticality is a measure of the significance of the activity as part of the transport system and the need for the phase(s) to be addressed, and the degree of impact to users, particularly due to availability (or not) of alternatives should the phase and the activity as a whole not be undertaken within the stated time periods. Interdependency is a measure of the degree to which the activity is necessary to unlock the benefits of another related or integrated investment in the most effective and cost-efficient manner.

The criticality component is rated as *Medium*. This is due to the need to undertake this activity to deliver the remainder of the programme to be implemented beyond the 2024-2027 NLTP. This is because of the follow up studies from the core preferred programme that are required before design and implementation stages can commence as part of this long-term programme. The identified benefits and KPI improvements will be delayed or not realised, leading to moderate adverse consequences for the New Plymouth district.

The interdependency component is rated as *High*. This is due to the work being a long-term standalone programme, of which delivery of the follow-on work (i.e., future studies) is required to enable further implementation of the core preferred programme. The result of non-delivery of the activity in the 2024-2027 NLTP will result in no benefits being realised and delays to implementation, meaning that various transport benefits and targets will not be achieved.

An overall scheduling rating of *Medium* for the core preferred programme is considered appropriate.

7.3 Efficiency

The efficiency of the core preferred programme is rated as *High*. This is due to the core preferred programme BCR of 6.8 falling into the high BCR category (BCR >6.0).

7.4 Investment profile

As part of the 2024-2027 National Land Transport Programme (NLTP) an investment prioritisation method has been determined based on the GPS 2024.

The NZTA Investment Assessment Framework (IAF) outlines the processes and procedures to assess and prioritise business cases, programmes, plans, projects, and other activities to be submitted for funding consideration. The investment profile of the core preferred programme is shown in **Table 7-2**.

Table 7-2: Core preferred programme investment profile

Strategic priority / Activity Class	**Public transport services and infrastructure, walking and cycling, local road and state highway improvements, investment management**
GPS Alignment	Medium
Scheduling	Medium
Efficiency	High
Priority Order	4

8 Commercial Case

The commercial case outlines the proposed procurement arrangements for the core preferred programme.

8.1 Procurement strategy

NPDC and NZTA will be responsible for procuring the activities for which they are the lead. Each will be bound by their individual procurement strategies.

The project procurement will be shaped by the NPDC Procurement Policy 2019. Endorsed by NZTA, this policy effectively responds to the prevailing economic landscape while also understanding resource availability in the Taranaki region. The underlying principles of this policy revolve around prioritising people, nurturing our environment, and fostering a thriving community.

While there are no intentions to deviate from the current procurement policies and plans within this program, it's important to acknowledge the potential risk that, for the sake of affordability, alternative funding sources might need to be pursued. In such cases, the specific procurement obligations of these diverse funding entities will have to be accommodated. The details of these procurement prerequisites will only become apparent when the situation arises, and they are not elaborated upon in this PBC.

NPDC does not have a professional services panel. Therefore, planning and design projects typically go to the open market, following the New Zealand government procurement standards. NZTA will procure using their normal procurement processes.

8.2 Risk management

The Project Manager of individual projects will be responsible for managing project risk and will maintain the risk register based on the NPDC Risk Management Framework. The risk register is a living document of the programme, where all risks are reviewed and updated at each phase of development. The extreme and high risks are then focused on to enable the project to spend time and resource wisely.

NPDC's approach to risk is identify all risks, score them, provide a mitigation treatment where able, then re-score the risk once mitigated. The focus is then on the extreme and high risks once mitigation is applied; and to review all risks at key milestones or phases of the project. Project risks at the time of writing the business case are given in **Appendix J**.

Climate resilience was identified by stakeholders as an integral risk for the project, however it is not included in the ITF risk register. This is not included because NPDC consider climate resilience as an essential part of any project and therefore it will be captured in a future climate hazard risk assessment, undertaken by NPDC, once individual projects are identified out the ITF. For the operation and maintenance of the transportation network, climate resilience is captured in the transportation activity management plan.

The risks will be escalated to and reviewed by the ITF steering group on a regular basis.

8.3 Change control

At the outset of each individual project, it is important for the scope of work to be clearly defined between the client and consultant/contractor. It should also be communicated between NPDC and NZTA where it will result an adjustment of programme and benefit realisation. Change can then be managed within an understanding of the tolerances of each project (related to funding, scope, risk, quality, and benefits).

It is recommended that a change control register is established for each project, and across the programme to show how the interdependencies of change are managed. The programme change control register will sit alongside the programme risk register and should be managed by the programme project manager.

8.4 Programme assurance

This PBC has been subject to internal review by the consultant team (Beca). The recommended project assurance deliverables for future phases are set out below in **Table 8-1**.

Table 8-1: Project assurance deliverables

Item	Component	Description	Owner
Funding	Approval by NPDC and NZTA	Internal approvals will be required for each of the projects, along with approval within the LTP and NLTP.	NPDC/NZTA
Property	Property acquisition	Internal approvals will be required for any property acquisition, and this will follow the relevant legal processes.	NPDC/NZTA
Peer reviews	Future business cases	Independent peer review is required for future business cases.	NPDC/NZTA and carried out by independent peer reviewer
Detailed design	Infrastructure design	Internal approval of designs, in particular where the design has deviated from typical standards.	NPDC/NZTA
Safety audits	Safe system assessments	Safe system assessments will be required for designs. The number and timing of the audits will depend on the complexity of the design.	NPDC/NZTA and carried out by an independent audit team
Tender phase	Procurement strategy	A procurement strategy is required to guide all procurement process. This is subject to internal approval.	NPDC/NZTA
Construction	Oversees and sign off practical completion	Internal procurement and contractual processes to be followed and approvals sought, including client field assurance.	NPDC/NZTA
Construction	Health and safety	All health and safety plans in place and approved before construction commences. Plans to be followed through to completion of construction.	NPDC/NZTA
Construction	MSQA	Independent external provider to provide quality assurance throughout construction.	NPDC or external provider

9 Financial Case

This section identifies the affordability of the core preferred programme. Full details of programme cost estimates are in the supplementary documentation.

9.1 Preferred program cost

The core preferred programme has a 30-year (2023-2053) non-discounted cost estimate of $596.7 million. The non-discounted core preferred programme costs are shown in the following tables, where **Table 9-1** focuses on displaying the costs by intervention category and **Table 9-2** focuses on displaying the costs by intervention scheduling categories of short, medium, and long term. The funding assistance rates (FAR) for each funding agency have been estimated according to typical historic proportions. The scheduling categories are defined relative to the start of the programme analysis period (2023), with short term being 0-5 years, medium term being 6-15 years, and long-term being 16-30 years. It is acknowledged that there is capital expenditure beyond 2053 in the full preferred programme for interventions that are contingent on further studies and business cases.

Figure 9-1 shows the 30-year non-discounted cashflow of the core preferred programme by capital expenditure and operational expenditure. Capital expenditure refers to the cost of constructing new assets, while operational expenditure refers to the cost of operating new services and maintaining and renewing new assets.

Figure 6-1 shows the 30-year non-discounted cashflow of the core preferred programme by NZTA intervention hierarchy category. This demonstrates an early focus in the core preferred programme on studies and cost-effective interventions that sit higher up the intervention hierarchy (see **Figure 2-1**) to deliver outcomes prior to constructing new infrastructure.

Cost estimates for the interventions included within the core preferred programme have been based on a series of assumptions regarding the nature of each intervention. Often these interventions are only a guide as, in most cases the details will be further developed in the recommended follow-on studies. Where possible the estimates of the cost for some interventions have been taken from the NPDC LTP 2021 – 2031. There is approximately $5.9 million identified for studies or business case projects to further analyse risks and requirements.

9.2 Funding risk

The estimates presented below in **Table 9-1** are expected estimates (P50). An additional increase of 50% on capital expenditure is assumed to reach a P95 estimate. NPDC should consider using the P95 cost estimates for setting LTP budgets where appropriate to account for uncertainties.

The cost estimates are a high-level assessment of the likely capital cost requirements for the project based on early scope briefing statements prepared by the Beca PBC team and NPDC. This assessment considers the high-level nature of the information provided and aims to connect benchmarking cost data (i.e. estimates, tender information, industry rates, etc) for the various transport typologies selected.

The values contained within this report are intended for high level evaluation and LTP budget setting purposes only. The estimates should not be relied upon as absolute/final, used for funding applications or final investment decisions. Further investigation and design is generally recommended to confirm the project scope requirements and provide definition to other elements of consequential work that may be required as part of the project. A complete list of assumptions and exclusions can be provided upon request.

Table 9-1: Core preferred programme summary of intervention category activities and 30-year non-discounted costs

Intervention category	Activity examples	Scheduling Term	CAPEX ($M)	OPEX ($M)
Align PT routes with key destinations and make PT more accessible	• Study to focus on supporting access to PT routes. • Park and ride facilities. • New bus route to New Plymouth airport from New Plymouth CBD. • Express bus services to Bell Block, Waitara, Inglewood, Egmont Village and Ōkato-Ōakura.	Short	0.13	2.40
		Medium	33.91	24.44
		Long	6.43	41.79
Improve PT infrastructure and travel time to make public transport more attractive and accessible	• Bus shelters and real time information implemented at most bus stops. • More bus hubs outside of New Plymouth (e.g. Waitara, Bell Block, and Ōakura). • Priority bus and carpool lanes at congested points on network. • Integrate key destinations and other modes with New Plymouth City Centre bus hub. • On-demand public transport for communities where regular public transport is not proposed. • Study to focus on new public transport services.	Short	1.76	0.00
		Medium	8.02	6.32
		Long	7.90	15.85
Improve PT frequencies and LOS to make PT a more attractive option	• More frequent public transport and increased night time services on existing routes. • Upgrade and better fund the Total Mobility management system for more inclusive public transport access. • Study to focus on new public transport digital infrastructure.	Short	0.25	0.00
		Medium	0.00	4.62
		Long	0.00	9.90
Improve lower cost multi-modal access, especially for communities outside of central New Plymouth	• More active mode connections across high-speed state highways in fringe areas. • Extend the coastal walkway to the southern coastal areas (e.g., Ōakura). • Footpath improvements to align with One Network Framework in high place function areas. • Cycle infrastructure within Ōkato and Egmont Village. • Better active mode facilities in Urenui.	Short	4.24	0.00
		Medium	36.26	1.29

Intervention category	Activity examples	Scheduling Term	CAPEX ($M)	OPEX ($M)
	• Footpaths in Waitara to same standard as rest of district – priority linking to schools, shops, coastal walkway extension. • Inclusive access to Marae. • More frequent buses between New Plymouth and district (e.g., Ōakura, Ōkato, and Inglewood). • Study to focus on regional active mode connections.	Long	47.05	10.40
Resilient connections at network pinch points for all modes	• New Plymouth intersection resilience and capacity upgrades. • Study to investigate strategic upgrade priorities.	Short	2.22	0.00
		Medium	101.75	3.22
		Long	12.29	15.45
Travel demand and travel behaviour management	• Parking strategy update. • Study to investigate road pricing strategy. • Western Ring Route indicative business case.	Short	2.10	0.00
		Medium	4.40	0.00
		Long	0.00	0.00
Reconfigure streets to align with One Network Framework outcomes and provide facilities for all modes	• Access for buses and active modes only on Ariki Street from Egmont Street to Brougham Street. • Focus movements on one state highway route through the centre of New Plymouth (e.g., SH45) and detune the other roads (e.g., SH44) to increase people focus. • Convert New Plymouth one-way system to a single two-way state highway to reduce severance. • Strandon Village place focussed treatments. • Inglewood CBD upgrade to reduce severance. • Reprioritise Devon Street East – Mangorei Road intersection to encourage through traffic to use SH3 Northgate via Mangorei Road to travel through Fitzroy. • Elliot Street precinct development. • More mobility parking, better positioned and designed to standard. • Create more people focussed spaces in district towns and centres. • New Plymouth District ONF study. • Update Network Operating Framework.	Short	5.91	0.00
		Medium	26.39	0.70
		Long	4.91	5.02

Intervention category	Activity examples	Scheduling Term	CAPEX ($M)	OPEX ($M)
Safety improvements for existing active mode facilities	• Signalised crossing points at schools in New Plymouth. • Bridge upgrades. • Raised pedestrian crossings around the district. • Inglewood Windsor Walkway safety improvements. • Convert Tukapa Street – Sanders Avenue roundabout to signalised intersection. • David Street – Tukapa Street signalisation. • District wide upgrade package investigation.	Short	2.63	0.00
		Medium	5.84	0.37
		Long	0.00	1.11
Complete the urban cycle network	• New Plymouth – Enthused and Confident Routes & Interested but Concerned Routes • Bell Block – Enthused and Confident Routes & Interested but Concerned Routes • Waitara – Enthused and Concerned Routes & Interested but Concerned Routes • Inglewood – Enthused and Concerned Routes & Interested but Concerned Routes • High LOS cycle facility engagement and design	Short	0.78	0.00
		Medium	2.86	0.13
		Long	54.78	5.36
Improve attractiveness and accessibility of active mode facilities	• Park and ride options for Coastal Walkway cycling including bike parking and hire. • Street lighting for key commuting active mode corridors to improve year-round usage. • Low traffic neighbourhood greenways for active modes. • Safer school crossings with shelters. • More safe and secure bike parking in city centre that considers repurposing car parks. • Improved and increased seating in town centres. • Study to focus on new facilities.	Short	2.70	0.00
		Medium	34.57	1.72
		Long	26.50	7.86
Increase population density in areas close to key urban centres and destinations	• High density residential developments along high frequency public transport routes. • Focus growth in existing New Plymouth urban areas, southern growth areas, and Bell Block. • Enabling social housing in areas with good transport choices. • Medium and high-density development with urban amenities nearby. • Study to identity land use changes to support higher density residential areas.	Short	0.20	0.00
		Medium	1.20	0.00
		Long	0.13	0.00
Reduce the need to travel where car alternatives are less viable	• 15-minute city concept – villages with services, retail, and place making to avoid CBD travel for communities over 5km away. • Addition of local centre and mixed use in Development Areas identified in the District Plan which are located more than 2km away from basic amenities.	Short	0.00	0.00
		Medium	0.60	0.00
		Long	0.07	0.00

Table 9-2: Core preferred programme 30-year non-discounted summary of costs by scheduling category

Intervention Category	Short Term – 0-5 years ($M)			Medium Term – 6-15 years ($M)			Long Term – 16-30 years ($M)		
	NZTA	NPDC	TRC	NZTA	NPDC	TRC	NZTA	NPDC	TRC
Align PT routes with key destinations and make PT more accessible	1.29	0.00	1.24	29.76	16.27	12.32	24.59	5.91	17.72
Improve public transport infrastructure and travel time to make PT more attractive and accessible	0.90	0.86	0.00	7.32	7.03	0.00	13.09	10.66	0.00
Improve PT frequencies and LOS to make PT a more attractive option	0.13	0.00	0.12	2.36	0.00	2.26	5.05	0.00	4.85
Improve lower cost multi-modal access, especially for communities outside of central New Plymouth	2.16	2.08	0.00	23.21	14.35	0.00	32.88	24.57	0.00
Resilient connections at network pinch points for all modes	2.03	0.20	0.00	104.67	0.29	0.00	27.73	0.00	0.00
Travel demand and travel behaviour management	1.07	1.03	0.00	2.24	2.16	0.00	0.00	0.00	0.00
Reconfigure streets to align with One Network Framework outcomes and provide facilities for all modes	3.01	2.90	0.00	19.65	7.45	0.00	5.91	4.02	0.00
Safety improvements for existing active mode facilities	1.34	1.29	0.00	5.15	1.06	0.00	0.86	0.26	0.00
Complete the urban cycle network	0.40	0.38	0.00	1.52	1.46	0.00	30.67	29.47	0.00
Improve attractiveness and accessibility of active mode facilities	1.38	1.32	0.00	18.51	17.78	0.00	17.53	16.84	0.00
Increase population density in areas close to key urban centres and destinations	0.00	0.20	0.00	0.00	1.20	0.00	0.00	0.13	0.00
Reduce the need to travel where car alternatives are less viable	0.00	0.00	0.00	0.00	0.60	0.00	0.00	0.07	0.00
Total	**13.71**	**10.26**	**1.36**	**214.38**	**69.65**	**14.58**	**158.32**	**91.91**	**22.57**

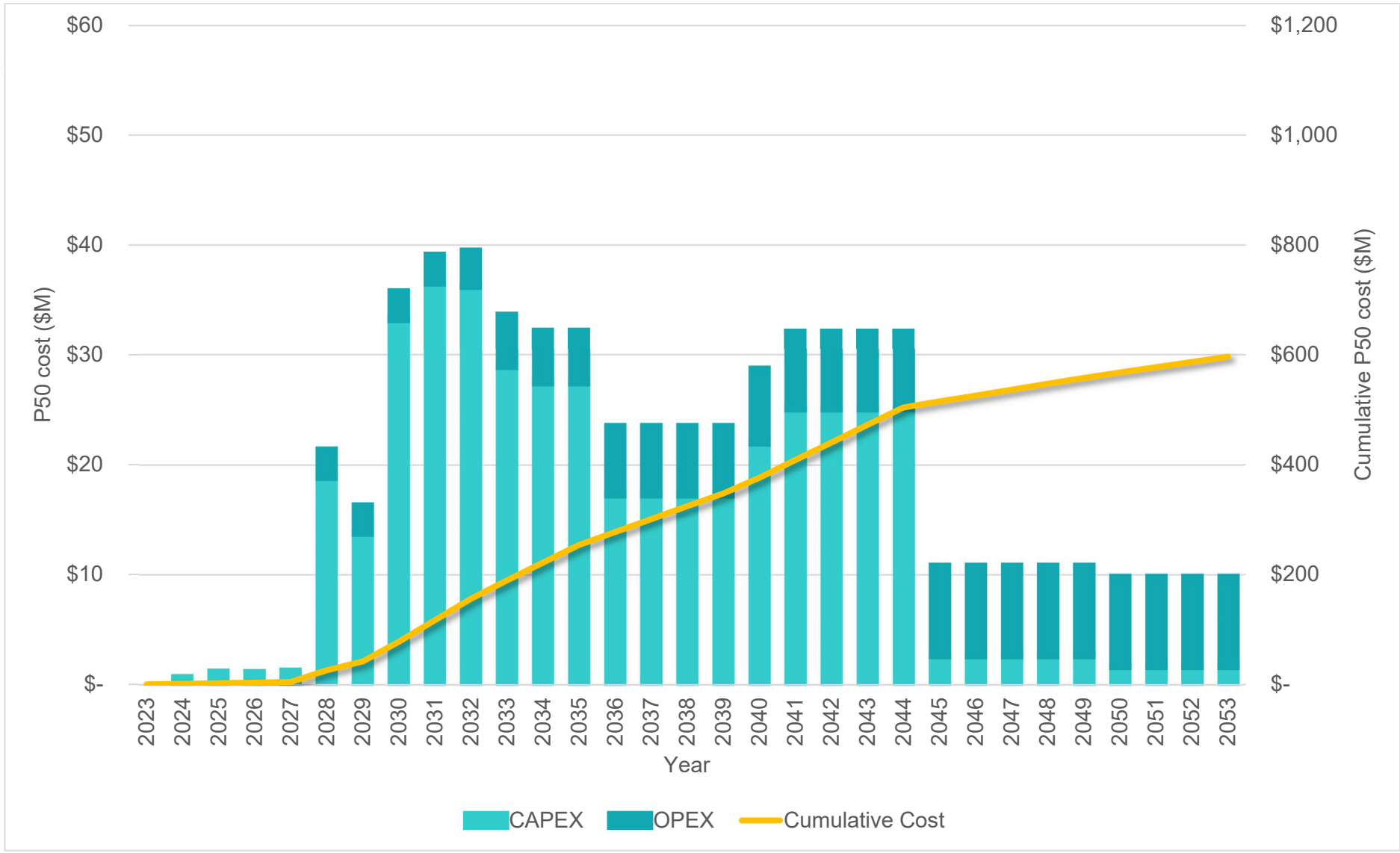


Figure 9-1: Core preferred programme 30-year non-discounted cashflow by capital expenditure and operational expenditure

10 Management Case

10.1 Programme governance and decision-making

10.1.1 Governance

Existing governance

The overall governance of the current programme is shown in **Figure 10-1**.

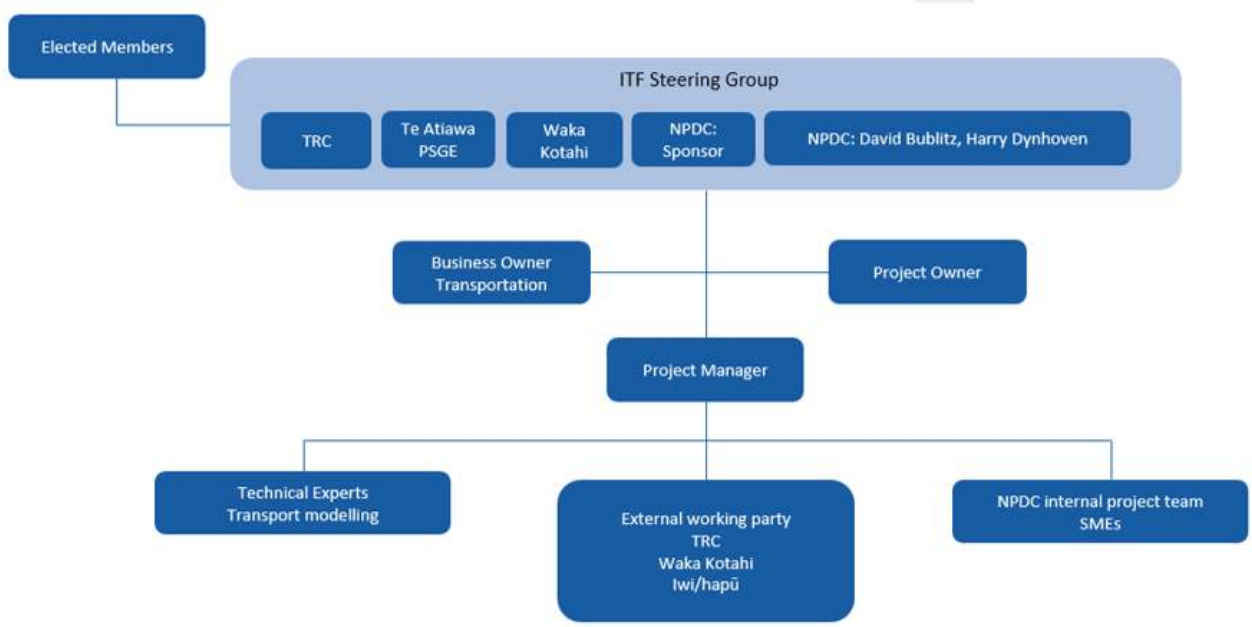


Figure 10-1: Existing ITF governance

The programme client is NPDC, with a member of the executive leadership team as the project sponsor. The Chief Executive Officer (the CEO) is currently the undertaking this role. The ITF Project Manager (PM) has guided the project on a day-to-day basis. They have reported to the ITF Steering Group which includes representative from TRC, Te Atiawa PSGE, NZTA and NPDC. The steering group has required updates on the programme schedule, finances, milestones and has made go/no go decisions on each stage of the project. The ITF PM has identified when further stakeholder consultation was required led the engagement plan (approved by the ITF steering group).

Future governance

Once the ITF is approved the governance structure will change. The terms of reference for the NPDC Transport Steering Committee will be extended to include the oversight of the delivery of the ITF. Representatives from the Project Management team at NPDC are on the steering committee. Therefore, this team will continue to deliver the packages of work from the ITF, with technical guidance provided by the Transport Planner at NPDC.

The Transport Steering Committee will include oversight of monitoring the KPIs (including benefit realisation), scheduling alignment of packages of work (such as studies to be completed to support infrastructure changes) and budget management. Risks, issues, and project reporting will be addressed on a project basis. We recommend the establishment of the terms of reference to include the ITF.

Internally, the transportation team will raise “demands” to create a Point of Entry Business Case (an internal document) and subsequently funding is added to the LTP. Once approved, a detailed business case is prepared with a series of recommendations of which those that align closest to the ITF would proceed.

NPDC currently participate on the Regional Public Transport committee and the regional land transport committee. Both these committees work with the TRC and NZTA to discuss operational and strategic matters. However, given the core preferred programme has several projects that directly impact NZTA and TRC it is recommended that a specific ITF committee is formed to provide the project governance. This provides the opportunity for the ITF to be flexible and reflect technological changes that may come to be in the future.

10.1.2 Decision-making

Overarching funding decisions for this programme on local roads lie with the elected members from NPDC through standard decision-making processes. This process is consultation, reporting and recommendation by Council Officers and approval by elected members. In relation to State Highway projects NZTA will decide funding through the national funding prioritisation. NPDC will work closely with the TRC on Public Transport projects and the organisation to lead each project will be determined on a project-by-project basis dependent on the scope of work.

The Council Officers will make recommendations with respect to next steps and recommendations.

10.2 Risk and cost management

The entire programme risk (Corporate Risk register) and cost management will be overseen by the Manger of Transportation (as the business owner in the NPDC P3M structure). On a project-by-project basis the individual Project Managers will be responsible for managing project risk and will maintain the risk register based on the NPDC Risk Management Framework. Each risk register is a living document of the respective projects, where all risks are reviewed and updated at each phase of the project. The extreme and high risks and opportunities are then focused on to enable the project to spend time and resource wisely.

The current project risk register is available in **Appendix J**.

The NPDC process for managing risk is as follows:

- The specific project manager reviews project risks monthly.
- The project risks are reviewed at the monthly Project Governance meeting. Any risks of significance are discussed in detail at this governance meeting.
- The risks that are high or extreme are also reviewed by the NPDC corporate risk manager and this person is accountable to the NPDC finance audit and risk committee. This committee includes several councillors and an independent co-chair.

10.3 Partner and Stakeholder engagement

The partner engagement undertaken to date, has been described in **Section 2** and the stakeholder engagement is described throughout **Part B – Developing the programme**.

As outlined in **Section 10.1.2**, partnering will continue throughout the lifecycle of the project with NZTA and TRC. A detailed Communications and Engagement (C&E) plan should be developed to support implementation through the programme lifecycle. It will be the responsibility of NPDC and NZTA to develop the plan, with support from communications specialists.

The partners will share ownership of the plan. To enhance engagement and communication for the program, messaging and a logo will need to be implemented that prioritise simplicity and consistency, aiming to prevent any potential confusion, particularly given the variety of transport projects that are included in the

PBC. The C&E Plan should be linked to and include regular monitoring and reporting, so a public feedback loop can clearly see if the project benefits are being achieved.

The engagement plan will be based on the International Association of Public Participation (IAP2) public participation spectrum. This is shown in **Figure 10-2** below with the varying levels of involvement that stakeholders can have in a project.

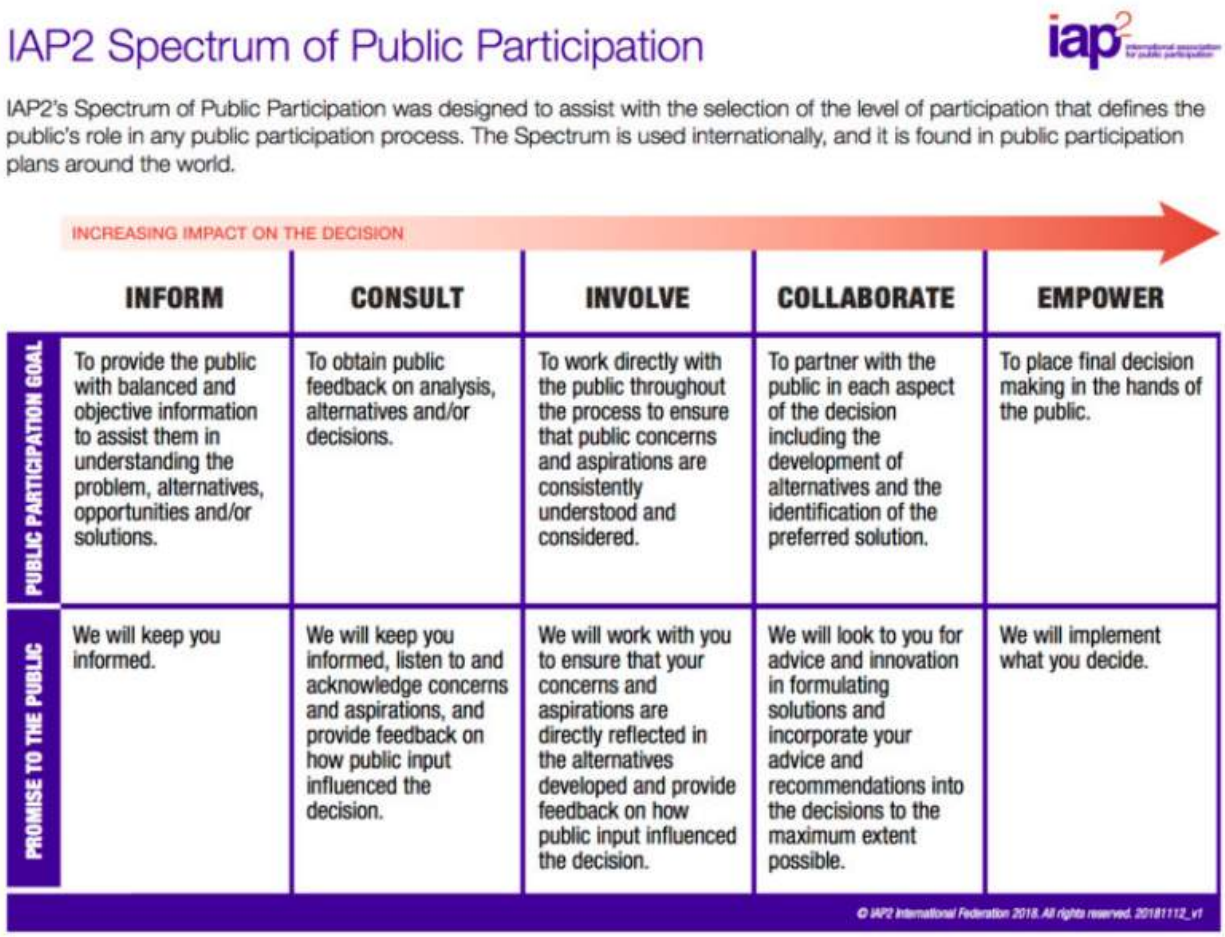


Figure 10-2: IAP^2 Spectrum of Public Participation

Following PBC approval, the focus of engagement will shift to the individual work streams.

Each of the lead agencies will be responsible for developing individual projects, and reporting progress back to show how the outcomes align with this PBC. Although projects have been recognized within the program, their impact on the overall program results have not been measured for several reasons. This is mainly because these projects are usually separate from one another and are still in their initial stages of progress.

10.4 Cost and programme management

10.4.1 Cost management

Throughout the lifecycle of this PBC it is highly likely that costs will change through the later phases and be further refined for pre-implementation and the implementation phases of projects. The responsibility of costs ultimately sits with the lead agency of the respective projects. The Project Manager of individual projects will take on the responsibility of cost management. They will be guided by the Transportation Manager at NPDC, this ensures TIO is up to date with forecasted costs and inflation adjustments.

10.4.2 Programme management

The implementation of the entire programme is required to address the problems fully realise the benefits and outcomes. While each intervention category can be worked through to deliver the benefits, the KPI target will not be fully achieved without the full programme. It is recommended that the ITF PM prioritises identifying a realistic schedule, that acknowledges the interdependency of projects, funding timelines, and minimises rework.

The programme has been scheduled into short (0-5 years), medium (6-15 years) and long term (16 years+) time periods, by intervention category, which is shown in **Appendix E**.

10.5 Benefits Realisation Plan

The investment objectives, developed around the key problem statements and benefits, are to be measured through the identified Key Performance Indicators (KPIs). The realisation of the KPIs through public transport interventions, a decreased reliance on cars as the primary mode of transport, improved access to amenities and employment, and a reduction in deaths and serious injury crashes is outlined in **Table 10-1**. If benefits are not likely to be realised, this should be raised as a risk with the ITF steering group or the lead agency for the work stream.

Table 10-1: Benefits realisation plan

Investment Objective	Measure	Data Collection Method	Owner
Public transport is accessible, convenient and the preferred mode of transport for many (30%).	**KPI 1:** Public transport travel times (average, variability).	Review travel times between key New Plymouth District destinations as improvements are made on a 1–3-year basis.	TRC
	KPI 2: Public transport user surveys and annual satisfaction surveys.	Survey public transport users as improvements are made on a 1–3-year basis.	TRC
	KPI 3: Percentage of population within 400 and 800 metre walking catchments of public transport.	Review using GIS software as development areas are constructed on a 3-5-year basis.	NPDC
	KPI 4a: Public transport mode share for journey to work trips.	Review using Census data as it becomes available.	NPDC
	KPI 4b: Public transport mode share for journey to school trips.	Review using Census data as it becomes available.	NPDC
Decreased reliance on cars as the primary mode of transport and increased walking, cycling and PT use (35%).	**KPI 5:** CO2 transport related emissions.	Review using the NZTA vehicle emission mapping tool or the Ngāmotu transport model outputs as they are updated.	NPDC
	KPI 6: Journey to work by single occupancy vehicle and vehicle kilometres travelled.	Review using the Ngāmotu transport model outputs as it is updated.	NPDC
	KPI 7: Proportions of public transport, walking and cycling for journey to work trips.	Review using Census data as it becomes available.	NPDC

Investment Objective	Measure	Data Collection Method	Owner
	KPI 8: Proportions of public transport, walking and cycling for journey to school trips.	Review using Census data as it becomes available.	NPDC
Improved access to amenities (coast, schools, and services) and employment along engaging and enjoyable transport corridors (15%).	**KPI 9:** Level of Service for pedestrians and cyclists on key routes (to schools, amenities, services, and employment).	Review using the NOF document as it is updated.	NPDC
	KPI 10: Comparative travel times between transport modes between key locations.	Review using the Ngāmotu transport model outputs as it is updated.	NPDC
	KPI 11: Percentage of residents living within 400 and 800 metre walking catchments of local centres.	Review using GIS software as development areas are constructed on a 3-5-year basis.	NPDC
	KPI 12: Foot traffic in the CBD and town centres and average length of visit.	NPDC to create an annual CBD visitor survey to measure this KPI.	NPDC
	KPI 13: Percentage of freight on appropriate arterial corridors and average freight travel times.	Review heavy vehicle percentages as part of annual traffic data collection activities.	NPDC
A safe and connected city and towns to walk and cycle with active and healthy communities (20%).	**KPI 14:** Deaths and serious injuries for active mode users.	Review using CAS data on a 1-3-year basis.	NPDC
	KPI 15: Percentage of primary cycling network which is safe, separated and continuously connected.	Review using GIS as the urban cycle network is implemented.	NPDC
	KPI 16: Pedestrian wait times and crossing delay in urban/town centres	NPDC to create an annual CBD visitor survey to measure this KPI.	NPDC

10.6 Next Steps

The next steps to take the New Plymouth ITF forward are:

- Confirm the scope and procurement strategy of the follow-up studies in **Table 10-2** to begin their development.
- Confirm the governance structure going forward for the project.
- Progress the stand-alone short-term activities that sit outside of the follow-up studies.
- Plan to deliver the projects in the medium term and long term as part of future LTP development processes.

The program of follow-on studies for the core preferred programme are identified in **Table 10-2**. As short-term projects move into implementation, an appropriate governance group with suitable skills should be created with a focus on delivery.

Table 10-2: Follow-on studies for the core preferred programme

Study	Approximate cost ($M)	Focus of study	Relevant intervention categories
Public transport services detailed business case	0.5	• Improve access to PT. • PT infrastructure to support better services. • Potential new PT digital infrastructure.	• Align PT routes with key destinations and make PT more accessible. • Improve public transport infrastructure and travel time to make PT more attractive and accessible. • Improve PT frequencies and LOS to make PT a more attractive option.
Study on strategic upgrade priorities	0.4	• Network resilience relating to safety and capacity. • High level impacts of making long term changes to the New Plymouth state highway network.	• Resilient connections at network pinch points for all modes.
District-wide ONF study	0.6	• Alignment of current district network to ONF and the interventions needed to improve alignment based on the small number completed to date.	• Reconfigure streets to align with One Network Framework outcomes and provide facilities for all modes.
Update Network Operating Framework	0.3	• Update the 2019 NOF to review any changes to the identified Network deficiencies relating to capacity and safety. • Investigate the necessary upgrades.	• Resilient connections at network pinch points for all modes. • Travel demand and travel behaviour management • Safe road connections at network pinch points • Safety improvements for existing active mode facilities
District-wide upgrade package investigation	0.1	• Assess network gaps in active mode networks in district towns (around schools, etc) • Identify the deficiencies and type of upgrades required	• Safety improvements for existing active mode facilities.
Study to identify Land use changes to	0.2	• Reviewing the District Plan and identifying opportunities for	• Increase population density in areas near key urban centres and destinations.

Study	Approximate cost ($M)	Focus of study	Relevant intervention categories
support higher density residential areas		higher residential density around the urban centres.	
Separated cycleway indicative business case, then any follow-on detailed business cases	1.5	• Accessibility, coverage, and effectiveness of the cycle network. • Improving supporting facilities such as lighting.	• Complete the urban cycle network. • Improve attractiveness and accessibility of active mode facilities.
Parking strategy update	0.1	• Refresh of plan pricing zones, on-road space hierarchy, management tools, and residential parking schemes. • Engagement with stakeholders on strategy.	• Travel demand and travel behaviour management
Study on regional active mode connections	0.2	• Development of recreational/tourist routes and connections. • Connections across high-speed State Highway areas.	• Improve lower cost multi-modal access, especially for communities outside of central New Plymouth.
Study on road pricing strategy	0.3	• Approach and implementation. • Impact assessment.	• Travel demand and travel behaviour management.
Western Ring Route indicative business case	1.7	• Viability of Western Ring Route • Assessment of options on alignment, scope, and BCR, including alternatives.	• Travel demand and travel behaviour management • Reconfigure streets to align with One Network Framework outcomes and provide facilities for all modes

A

Appendix A – Point of Entry

RECORD OF THE POINT OF ENTRY

The record of the point of entry (PoE) is a critical part of a business case. It is also the initial record of the pathway to be followed through investment decision making processes where a business case is established.

Please ensure you address each question carefully, and consider the full range of risks, timeframes, and costs. It is essential that you also anticipate the business case development pathway appropriate to the proposed investment, including the next step, as this will inform the level of detailed information you must capture here.

Note that completion of this record **is not** a substitute for the necessary critical thinking and discussions that **must** characterise the development of a PoE.

All fields are required to be completed for Waka Kotahi NZ Transport Agency to consider whether or not a business case will receive endorsement. Where appropriate, reference or additional information can be added to this record, such as evidence used to answer the 16 investment questions.

The text in *blue italics* is a guide to how to consider the questions. The actual information provided needs to be detailed, specific and relevant. The level of detail should reflect the risk and complexity of the proposed investment.

For more comprehensive guidance visit the Transport Agency's Business Case Approach (BCA) guidance.

This template should be completed by the problem owner in consultation with a Point of Entry specialist from the Transport Agency Strategy Policy and Planning team, to ensure effective early engagement and access to clear and consistent advice to ensure fit-for-purpose effort.

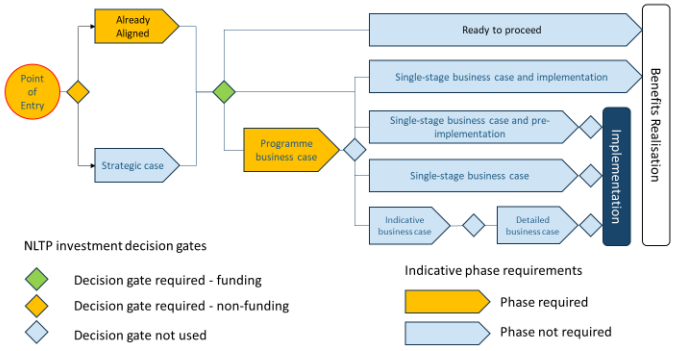
Context	
Initiative name	Integrated Transport Strategic (ITS) Plan 2021 - 2051
Author	Stuart Knarston, Transport Planner, New Plymouth District Council (NPDC)
Lead organisation or business group	Transport Group, NPDC.
Problem owner	*Rui Leitao, Manager Transportation, NPDC*
Transport Agency point of contact	Wayne Wallace
File reference	https://infohub.transporthub.govt.nz/otcs/cs.dll?func=ll&objaction=overview&objid=50376163
Date submitted for review	20 September 2021
Background	
New Plymouth District Council is characterised by a traditional car-oriented transport system with poor public transport service levels, limited provision for alternative modes and some concerning road safety trends. New Plymouth's district population is forecast to grow significantly from 86,700 (2021) to 104,900 (2051) over the next three decades. The pressure of growth in combination with existing limited network resilience, connectivity and travel choice, and Government's agenda for urban development and significant climate change adaption over the next 30 years demands a significant shift in New Plymouth's transport response.	

New Plymouth DC does not have an existing transport strategy and is one of the few provincial NZ cities without transport modelling capability (ref Research report 659 Page 54) to assess alternative transport responses. Without modelling capability, it will be difficult to forecast and assess the impacts of major decisions on transport infrastructure, transport programmes and operation over the next 30 years. This is discussed in greater detail below. The modelling capability would also provide the opportunity to provide a robust evidence base to support the delivery of the next NPDC Long Term Plan 2024 – 2034 and the key moves of the Central City Strategy, due to be completed by August 2021.	
Setting out the problem or opportunity	
Problem or opportunity description	The opportunity is for New Plymouth DC, in partnership (with Waka Kotahi, TRC, Te Atiawa Trust) to develop an agreed, integrated strategic transport response to meet the demands of future growth and address the identified key transport problems within the district up to 2051. The four key transport problems were reviewed and refreshed in the NPDC AMP 2021 – 2031. These include (in summary): 1. Natural topography and layout of infrastructure makes it difficult to complete a trip using alternative transport modes, causing severance of the community and places the network at risk during a major event. 2. Not taking a "safe system" approach to a complex network has resulted in poor actual and perceived safety outcomes. 3. Poor understanding of the value that our transport infrastructure provides for our community and regional economy has resulted in poorly targeted investment and missed economic opportunities. 4. Infrastructure and societal habits encourage motor vehicle usage causing environmental damage, poor health outcomes and unattractive urban spaces.
	The outcome for this project would be an agreed ITS plan to address the needs of growth and future transport network demand within the New Plymouth district. The strategic plan would apply new national tools (such as ONF), develop transport modelling capability, identify key strategic moves and interventions and develop an agreed programme of work. The transport modelling capability is necessary to support decisions on strategic infrastructure and service investment in NPDC's transport network over the next 30 years and assess the impacts of different significant intervention scenarios. The NOP recently developed for NPDC provides short term actions to optimise the existing network, but it does not provide the capability to assess strategic options for major network and service investment over a 30 year period. The modelling will help assess major strategic options and inform decisions that support outcomes that result in improved network performance, higher levels of safety, improved economic performance in the district and more sustainable transport choices.
Ensuring alignment with strategy (see Note 6)	
Describe how the investment aligns with strategy	There are numerous national, regional and local strategic documents that provide direction to the ITS Plan. There is generally good alignment between the goals and objectives of these documents and NPDC's as indicated in Table 1 (attached in Appendix). The key strategic directions and actions which support the development of the ITS Plan are described below: • The Ministry of Transport refreshed the GPS 2021-2031 which outlines the four strategic priorities which include: o developing a low carbon transport system, o improving freight connections, o a system where no-one is killed or seriously injured, and

	○ providing people with better transport options The ITS Plan will assess the impact of scenarios that support better travel options, freight connections and respond to climate change for New Plymouth and recommend a way forward. • The National Policy Statement on Urban Development provides direction to increase residential density in city or town centre locations and remove parking minimums, amongst other things. NPDC's proposed District Plan will provide important direction setting for future growth which will form the base case for the ITS Plan. • TRC has recently approved the need to significantly improve the provision of public transport within the region resulting from feedback on its RLTP and LTP 2021-31. This would be considered as a step change in the ITS Plan for option development. • The NPDC Proposed District Plan outlines future urban zones and the rules governing activities within them. The phasing of future urban zones will form part of the base case for option development. The proposed ITS Plan would deliver across the strategic objectives of all key partners and the contribution to the achievement of them for the New Plymouth district is considered significant. The linkages between the strategic documents are indicated in Figure 1.		
Level of risk, uncertainty and complexity (see Note 7)			
Key risks	Risk of not doing anything will result in uncoordinated national, regional and NPDC programme response to development and growth in New Plymouth. Silo'd responses from NPDC and key partners do not support growth or results in uncoordinated growth / infrastructure mismatch Key partners, stakeholders and NPDC departments may not support the ITS plan approach & actions e.g. focus on sustainable transport approach vs increased capacity for vehicle traffic Central Government's plan response to the Climate Change Commission recommendations has been delayed by 5 months and is the biggest current uncertainty facing the transport sector. The proposed 15-yr plan will determine the strategic direction of the sector both in terms of key investment moves and funding.	**Overall risk level:**	*High*
Key uncertainties	Funding contribution from Waka Kotahi for progressing the investment (in era of NLTP funding uncertainty)	**Overall uncertainty level:**	*Medium*
Level of complexity	High level of complexity involving key partners and functions, multiple-modes, alignment with land development and	**Overall complexity level:**	*High*

	other transport / climate change related programmes, range of interventions to achieve outcomes.		
Previous and related work (see Note 8)			
Summarise previous work	The GPS strategic priorities the previous work contribute to are shown in (). The Strategic Case for keeping New Plymouth moving and growing with Waka Kotahi was completed in 2017. The four problems statements from the Strategic case were updated and refreshed in the NPDC Draft Transportation AMP 2021-31 (Safety & Better Travel Options, Freight Connections). The NPDC NOP (2020) provides for 29 actions for both SHs and local roads which are being incorporated into the Network Improvement Plan and pipeline of work for Waka Kotahi. These actions, including the recommended revocation of part of SH44 will be considered in the base case and option development in the ITS Plan. The development of the NOP was the major expenditure item (approx. $490,000) for NPDC in the NLTP 2018-21 which covered the cost of developing the NOP and recommended actions, and the development of the NOP assessment tool (Safety & Better Travel Options). The Draft AMP informed the transport sections of the NPDC Long Term Plan (LTP) 2021-2031, recently adopted by the NPDC. The Draft AMP provides the strategic basis for the problem and benefits statements for the ITS Plan investment, which were identified from ILM and POE discussion in the AMP (Safety, Freight Connections). NPDC provided input, submissions and feedback on the development of the 2021-2031 Regional Land Transport Programme and Regional Public Transport Plan, which contain aligned issues and challenges with those identified in the AMP / ITS Plan (all GPS Priorities).		
Summarise related work	The following related work will also influence the development of the ITS Plan. How they will influence the ITS Plan is described in Figure 2. The GPS strategic priorities they contribute to are shown in (). 1. The Draft NPDC Central City Strategy (2021) provides key moves which seek to (Climate Change, Better Travel Options): a. address access severance across the SH system to the coastal walkway, b. provide better cycling and walking connections within the Central Area, c. relocate the central public transport hub to improve operation and access and d. increase residential living in the Central City. The draft Strategy will be approved on in August 2021. These key moves will be pursued and assessed in the proposed ITS plan. 2. The NPDC LTP 2021-2031 proves the ten-year view of significant transport projects (such as the Bell Block to Waitara Pathway Indicative Business Case) which will inform the base case and option development in the ITS Plan (all GPS priorities). 3. Speed management programme changes and other low cost / low risk investments across New Plymouth will contribute the base case and option development in the ITS Plan (Safety). 4. The NPDC Growth workshops will inform the development of the transport model as part of the ITS Plan and provide the basis for aligning the base case, assumptions and infrastructure work programmes across transport, 3 waters and growth plans (Climate Change, Better travel Options).		

	5. The Waka Kotahi Safety Improvement programmes involving Bell Block to Waitara (SH3) and New Plymouth to Egmont Village (SH 3A). These projects will contribute to the base case and option development in the ITS plan (Safety). 6. Waka Kotahi have introduced the One Network Framework (ONF) which replaces the ONRC and recognises the important place functions of the transport network. NPDC's road classifications are currently being updated to reflect this new approach and the 10-year desired future network classification will be developed from this (all GPS Priorities). 7. The TRC LTP 2021-2031 supported a step change in public transport, from which scenarios will be developed by TRC which will contribute to the base case and option development in the ITS plan (Better Travel Options). 8. The NPDC regional development arm Venture Taranaki established a vision with business sectors for a transition to a low carbon future by 2050, called Taranaki 2050. The ITS Plan would help deliver some of the transport components of the transition (Climate Change, Better Travel Options). The ITS Plan will be managed as set out in the governance structure with key partners as shown in Figure 3 (attached): Other interdependencies will be managed by key partner project teams for major projects as required.
Planning the next stage (see Note 9)	
Recommended next phase	Programme Business Case (PBC), as it will involve the consideration of multiple programmes and projects, and a range of potential interventions. The PBC will be developed in parallel to the ITS Plan.
Scope of next phase	The set-up of the Governance structure and project team for the ITS Plan has been completed and approved. The tasks have been allocated to a range of project teams. Background work has commence on the first 4 tasks; (1) City comparison, (2) key drivers (external influences over the next 30 years); (3) strategic case pathway and (4) goals, objectives and principles. The project plan / scope of work for the full ITS Plan is contained in the attached document.
Target completion date	The ITS Plan is expected to be completed by 3rd quarter 2022.
Budget requirements	The overall budget is $490,000 over the 21/22 and 22/23 years. Refer the project plan / scope of work (attached).
Business case pathway (see Note 10)	
The PBC is considered the most appropriate BC pathway for this investment. It involves consideration of scenario options, multiple modes, different projects and programmes and a range of interventions. The ITS Plan may recommend a preferred package of options. The preferred package of options from the ITS Plan will be included in the next iteration of the NPDC LTP 2024-2034. Decisions on inclusion in the LTP will be recommended by the Manager transport, GM Infrastructure and approved by Council. Individual projects or programmes identified in PBC and included in the LTP will proceed as IBC, S-SBCs or DBC or continuous programmes (including low risk-low cost) as required, depending on the nature of the project or intervention (in terms of complexity, risk and/or uncertainty), and cost.	



Decision/next steps (to be completed by Lead Organisation – Problem Owner)	
Decision	**Recommended / ~~Not recommended~~** (strike out as applicable) **Name: Rui Leitao** **Role: Manager Transportation** **Date: 17 September 2021**
Decision/next steps (to be completed by NZ Transport Agency – National Manager, Programme and Standards)	
Decision *(signature required here)*	**Endorsed / ~~Not endorsed~~** (strike out as applicable) That the National Manager, Programme and Standards: • **Endorsed** the Integrated Transport Strategic (ITS) Plan 2021 - 2051 Point of Entry, and • **Approved** proceeding to the Integrated Transport Strategic (ITS) Plan 2021 - 2051 Programme Business Case **Name:** Vanessa Browne **Date:** 22 October 2021
Conditions and/or agreements required	N/A
Decision/next steps (to be completed by NZ Transport Agency – Chief Financial Officer)	
Decision	**Endorsed / ~~Not endorsed~~** (strike out as applicable) That the CFO • **Recommend** that the Chief Financial Officer approve funding for the Integrated Transport Strategic (ITS) Plan 2021 - 2051 Programme Business Case with a total cost of $490,000 and NLTF share of $249,900 at a FAR of 51% from the Investment Management activity class and work category Transport Planning WC004 **Reasons for recommendation** This activity is • Aligned to the GPS • Urgent • Represents value for money **Name:** Howard Cattermole

	Date: 26 October 2021
Conditions and/or agreements required	N/A
Mandatory Information ☒ *(Check once confirmed)* ☒ ☒ ☒	1. That the activity is included (or varied into) the RLTP and NLTP 2. That the Manager, Treasury and Cashflow confirms funds are available from the relevant activity class. 3. That the activity class owner has been engaged and confirmed priority for the activity. 4. That relevant DP&S and PI staff have been engaged in understanding the need and priority for the activity.
NZTA Assessment for Endorsement (Completed by NZTA Staff only)	
Additional relevant Context/Background	The context and background are well described
Confirmation of Strategic Context	The strategic context is confirmed
IAF Results Alignment Assessment (if Applicable)	This activity has HIGH results alignment in that it will provide an integrated transport plan designed to support all the GPS priority outcomes. Being an integrated plan, this activity has HIGH criticality.
Timing/Urgency	This activity provides an urgently needed integrated strategic platform for its planning and interventions
Funding Position	This activity has confirmed funding availability https://infohub.transporthub.govt.nz/otcs/cs.dll?func=ll&objId=50379507&objAction=viewheader
Recommendation	That the National Manager, Programme and Standards: • **ENDORSE** the Integrated Transport Strategic (ITS) Plan 2021 - 2051 Point of Entry, and • **APPROVE** proceeding to the Integrated Transport Strategic (ITS) Plan 2021 - 2051 Programme Business Case • **APPROVE** varying the NLTP to include the Integrated Transport Strategic (ITS) Plan 2021 - 2051 Programme Business Case That the CFO • **APPROVE** funding for the Integrated Transport Strategic (ITS) Plan 2021 - 2051 Programme Business Case with a total cost of $490,000 and NLTF share of $249,900 at a FAR of 51% from the Investment Management activity class and work category Transport Planning WC004
Reasons for Recommendation	This activity is • Aligned to the GPS • Urgent • Represents value for money

Table 1: Overview of strategic alignment between the GPS, RLTP, NPDC PDP and NPDC AMP

Waka Kotahi - GPS	TRC - RLTP	NPDC - Proposed district plan	NPDC – AMP 2021-31
Safety: Transport system where no-one is killed or seriously injured.	**Safety**: A safe transport network increasingly free of death and serious injury.	Transport network is safe, efficient and effective in moving people and goods	**Safety:** Local roads that are safe for all road users
Better Travel Options: Better transport options for people to access social and economic opportunities.	**Accessibility & travel options**: A people-focused, multi-modal land transport system.. **Resilience**: A land transport system that is robust, responsive to changing needs and resilient to external influences	Transport network is a well connected, integrated and accessible system that • meets current & future needs • maximises opportunities to link with landuse • promotes the use of public transport, walking & cycling....	**Resilience:** • Appropriately maintain the District's seal roads • Respond to service requests in a timely manner • *Provide a high quality and safe footpath network* • *Provide a quality and safe cycle network*
Climate Change: Low carbon transport options that support reduced emissions	**Sustainable environment**: An energy efficient and environmentally sustainable land transport system.. **Integrated transport**: Integrated and collaborative approach to transport and landuse planning..	Adverse effects from the construction, maintenance and development of the transport network are mitigated	**Accessibility & Sustainability:** • Provide a high quality and safe footpath network • Provide a quality and safe cycle network
Improving Freight Connections that improve economic development	**Economic development**: An effective.. land transport system that enhances economic well-being, growth and productivity...	The existing and future transport network is not compromised by incompatible activities...	• Provide good quality District roads • *Appropriately maintain the District's seal roads*

Figure 1: Linkages between documents

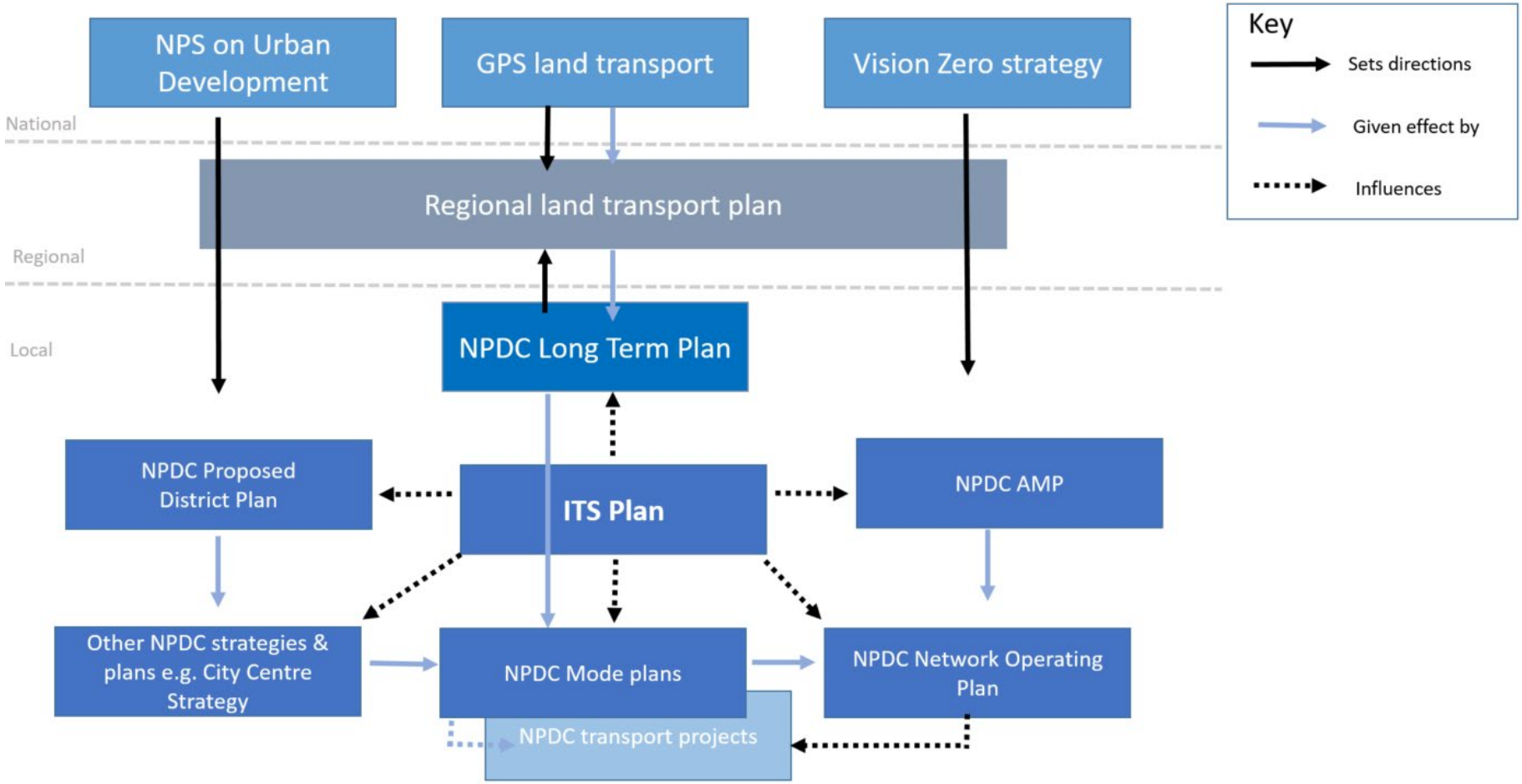


Figure 2: Related work

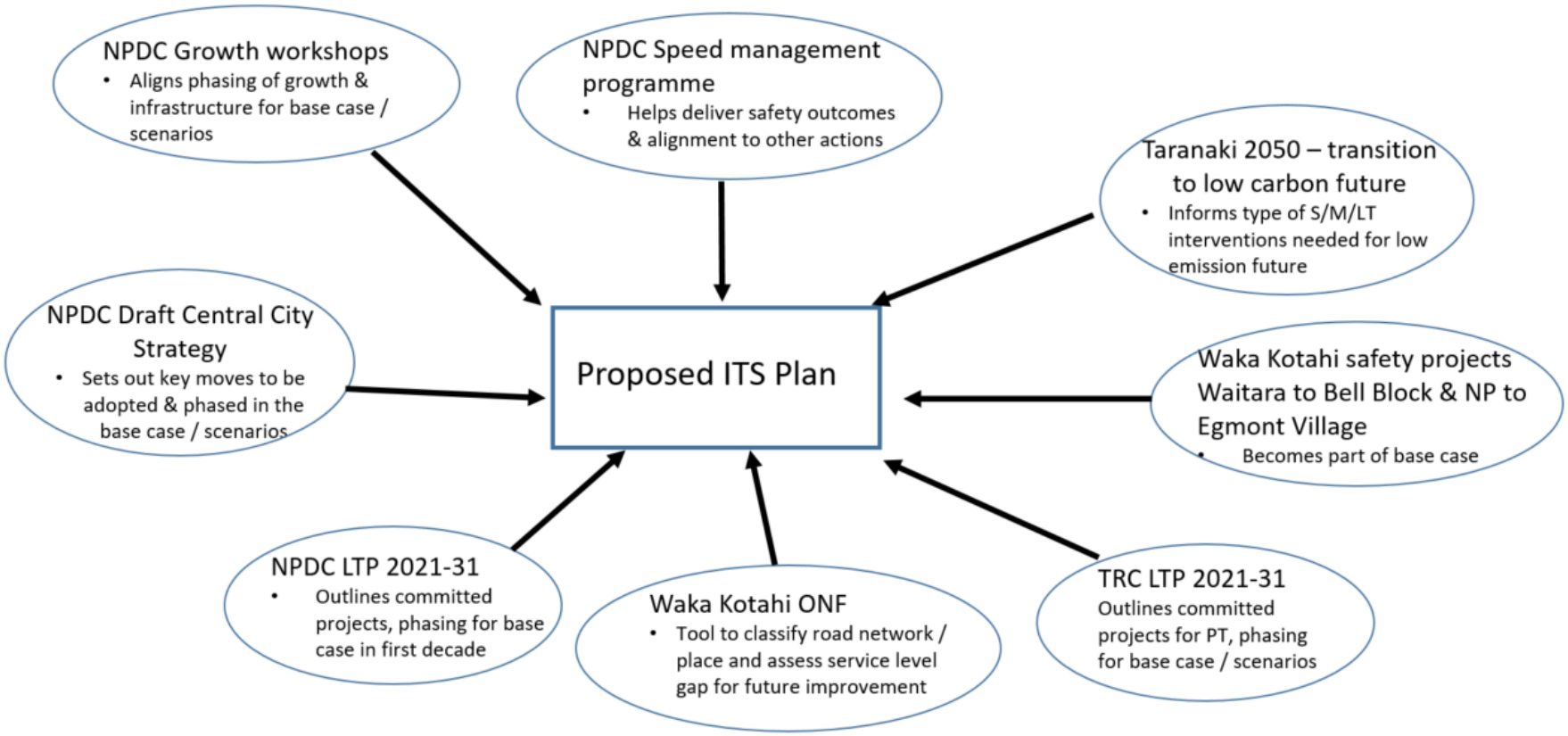
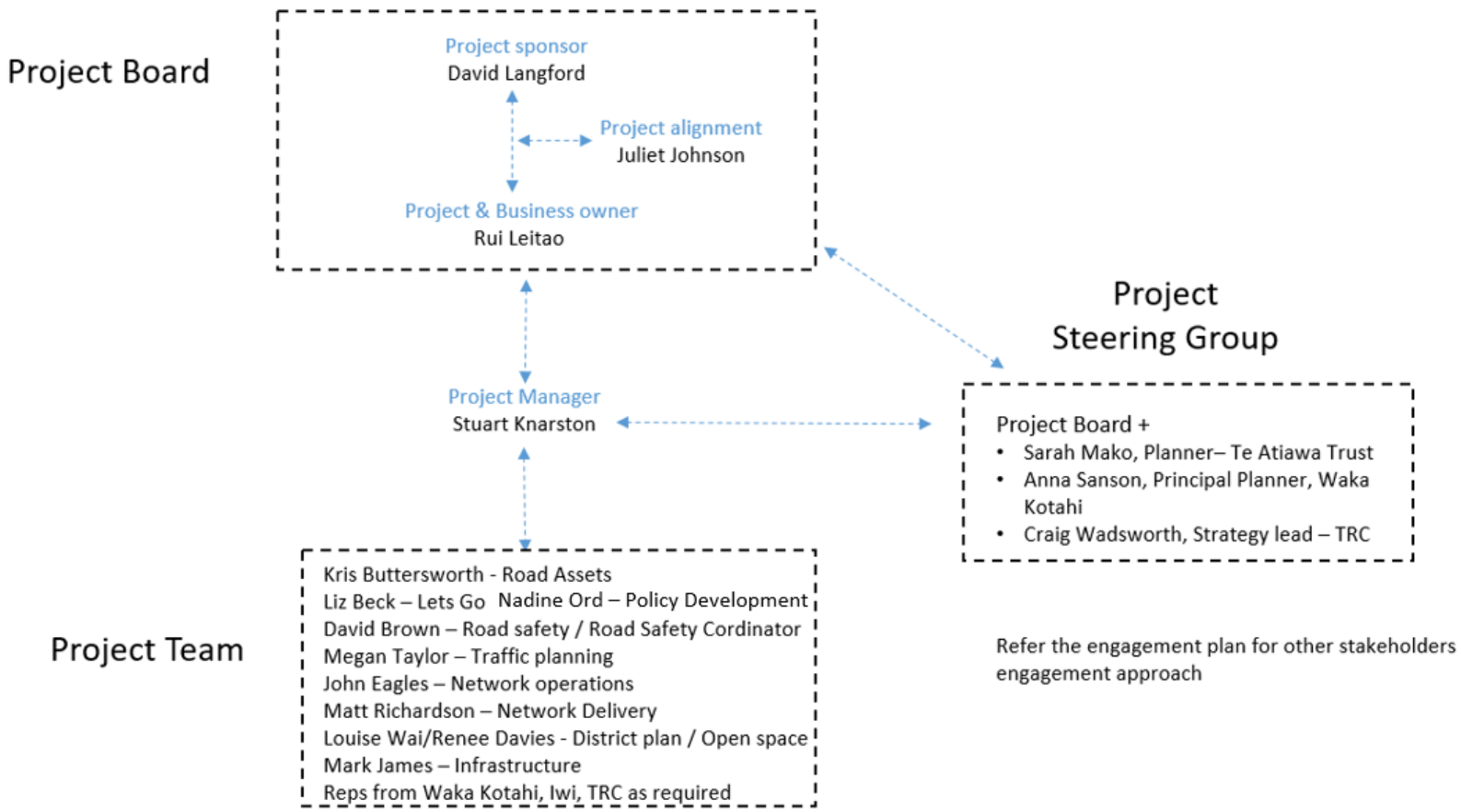


Figure 3: Proposed Governance



GUIDANCE NOTES FOR RECORDING THE POINT OF ENTRY FINDINGS

The Point of Entry is where we consider whether to begin the development (or not) of a business case for investment, and if so, how that should start.

The Point of Entry phase is designed to allow meaningful discussion and the use of critical thinking.

Completion of this Record of Point of Entry is an important step and about much more than form-filling or compliance. It is important that effort and attention is given to completing the PoE phase well, rather than rushing to complete it to get started. Often the reason business cases don't progress, or have significant problems, is because the PoE didn't identify the scope the work properly.

Carrying out a Point of Entry should precede the initiation of **any** business case. However, for the Transport Agency to **endorse** a PoE, certain information is needed: that information is set out in this form. In part this is because endorsement of a PoE signals that the Transport Agency believes the proposed investment is both needed and aligned with current priorities for NLTP investment.

The Transport Agency expects that its advice and input will be sought at an early stage in completing the PoE phase (not just this record), and that endorsement of the Point of Entry phase will be needed **before** work commences on any future stages. Failure to do so means that the lead organisation continues work at their own risk and carries a high likelihood that rework will be needed or that funding will not be available.

The level of detail that is captured should be consistent with the recommended starting point. If a strategic case needs to be done before the scope of work can be fully understood, the information will be a best-estimate, based on what is currently known. It should be possible to provide more detail for the development pathway if there is information from earlier phases.

Guidance on completing a Point of Entry and recording the results

Notes:

1. Provide the name of the organisation that will be accountable for the investment and will lead development of the business case. This will be either:
    a. An Approved Organisation, or;
    b. The relevant business group within the Transport Agency.

2. Identifying who will be accountable for the business case is an important early step, as this person needs to sign the PoE to confirm they agree with the findings and recommendations. Forms that are not signed by an accountable person will not be accepted for endorsement. The name provided must be an individual, not a business group or organisation. A problem owner may want to consider a RASCI matrix for their proposed investment (Responsibility, Accountability, Supporting, Consultation, Information). This will help to identify the accountable person, and who else needs to be involved.

3. Provide the name of the primary Transport Agency contact for the business case, including PoE and subsequent phases.

4. When describing the problem (or problems) for the purposes of PoE, it is expected that the PoE phase will include discussions to better understand the problem. The description provided should be based on the best initial understanding of the problem and should be phrased simply and clearly. Avoid long and detailed explanations –

clarity is more important. Also avoid statements that point to a specific solution or response, for example ‘we need to increase bus services’. If in doubt, consult a representative of the Transport Agency, who can help guide you through this step.

5. Similarly, in describing anticipated outcomes or benefits it is not necessary to have completed a detailed benefit definition exercise. The PoE phase should focus on understanding the overarching outcomes, and whether they will deliver a significant or minor contribution.

6. The proposed investment must be well-aligned with strategy to justify developing a business case. If the PoE is being completed by a Transport Agency staff member seeking internal funding, be clear about the alignment to the Transport Agency’s strategic directions.

7. Understanding the levels of risk, uncertainty and complexity are key factors when determining the level of effort required for any business case. Risks and uncertainties are treated differently for the purposes of investment. Whole-of-life costs are typically unknown at the PoE phase and cannot be estimated with any confidence. The degree of complexity is often used instead, to help in determining the likely level of effort required.

   Guidance on the risk-based approach

8. Provide a summary of relevant pre-existing work. This might include strategic cases, programme business cases or reports. Include any references made to the problem or opportunity in regional land transport programmes (RLTPs) or the National Land Transport Programme (NLTP). Does the pre-existing work help to respond to any of the 16 investment questions? Would it pass an assessment by the Agency? Are there existing documents that relate to this investment, and do they address some or all of the requirements for any phases of business case development?

   16 investment questions for the business case approach

9. The starting point will either be a strategic case or some later phase. If it is a strategic case the information can be relatively brief, but will need to answer these questions as a minimum:
   - How will problem and benefit definition be carried out?
   - If Investment Logic Mapping (ILM) workshops are to be used, what level of facilitation will be needed?
   - Who will need to be involved – including stakeholders, the people who hold the most knowledge about the problem, and any Transport Agency staff.
   - Who will write the strategic case, and will they need any specific support from other parts of the organisation?
   - What approvals will be needed?

10. If the start point is beyond a strategic case the information provided needs to demonstrate how the requirements of a strategic case have been met. The scope of the next stage should also include details of how any gaps in previous work will be addressed and be able to justify the value of any NLTP funding application needed for the phase to proceed. If available, a project plan can be attached to this PoE record.

Information about the indicative pathway for completion of the business case is required at the PoE development stage. This includes the expected pathway for the business case process and investment decision(s), ensuring all stakeholders have visibility of the phases of development likely to be necessary to complete development of the business case and the decision-making process.

Guidance on how to plan for and describe the anticipated pathway

B

Appendix B – Key Stakeholders

Stakeholders	Role or connection to the project	Benefits of involvement	Project Phase (Project and Vision)	Level of interest	Level of influence (using IAP2 matrix)	Level of impact
Elected Members	Ambassadors to support the transport vision Participation in workshops on the vision Approving final council report	Governance Driving behaviour change across the district	P + V	Significant	Inform, consult, involve, collaborate, empower Significant	Significant
Steering Group Kevin Strongman –NPDC Project Sponsor Rui Leitao - NPDC Business Owner Natalie Wiseman– NPDC Project Owner Juliet Johnson – NPDC Second business owner Sarah Mako – Te Atiawa Sarah Downs – Waka Kotahi RM Lower North Island Mike Nield – TRC Head of Transport	To be kept informed on project progress Approve scope budget and timeframe changes Presenting final report to EM and own business units	Governance Behaviour change within network Contacts within business networks High level decision making Collaboration against key SH – sharing intel	P + V	Significant	Inform, consult, involve, collaborate, empower Significant	Significant
NPDC ELT CE Jacs Baker Joy Buckingham Kathryn Scown Kevin Strongman Mary Johnson Steve McIntosh Teresa Turner	To be kept informed on project progress through P3M	Awareness through P3M	V	Moderate	Inform High	Moderate
Mikaela Addy – NPDC Project Manager	Ensure project runs on time, in scope and on budget Act as the central point for all SH	Oversight to all aspects of the project	P + V	Significant	Inform, consult, involve, collaborate Medium	Significant
Beca Megan Taylor Michael Flyger Michael Town Matthew Hickson Andrew Murray	Beca Project Management Team Ensure project runs on time, in scope and budget Collaboration modelling team and programme business case team	Technical expertise and experience Contacts – transport sector	P + V	Significant	Inform, consult, involve, collaborate Medium	Significant impact

Stakeholders	Role or connection to the project	Benefits of involvement	Project Phase (Project and Vision)	Level of interest	Level of influence (using IAP2 matrix)	Level of impact
Nyan Aung-Lin	To complete project as per contract agreement.					
Nichola Maclean – NPDC Engagement Advisor	Collaboration with SH Comms/Engagement	Experience comms/engagement SH management	P + V	Significant	Inform, consult, involve, collaborate. Medium	Significant
Iwi / hāpu Te Atiawa – Sarah Mako	Governance and Te Ao lens, influence for both iwi and hapu and NPDC	Connections and expertise Connections to wide audience to hear all voices	P + V	Significant level of interest.	Inform, consult, involve, collaborate, empower High	Significant
Waka Kotahi Sarah Downs Shaun Scott – Financial advisor Sarah Giles – principal advisor, communications, and engagement Sarah Loynes – Principal Planner	Financial governance and influence (51 % of all projects) Transport expertise Approving final programme business case. Long list to short list	Local and national knowledge Funding	P + V	Significant	Inform, consult, involve, collaborate, empower High	Significant
NPDC Community Boards Clifton Inglewood Kaitake Waitara Puketapu -Bell Block	Lead the community – behaviour change To be kept informed before consultation	Link to community and use of their channels – roll out information for each area Provide info about their community, social nuances, anecdotal info	P + V	Moderate	Inform, consult, involve High	Moderate
NPDC Internal Teams Transportation Planning Regulatory MarComms Customer Service Legal 3 Waters Policy Parks and Open Spaces	Expertise across all business areas Contact connections	Aligned across NPDC – LTP / AP's Common language. Regulatory and legal requirements.	P + V	Significant - Transport Moderate level of interest – other departments	Inform, consult, involve, collaborate Medium level of influence	Significant
NPDC Committees Strategy & Op's Te Huinga Taumatua	Lead the community – behaviour change To be kept informed before consultation	Driving behaviour change across the district	V	Moderate level of interest	Inform, involve	Moderate

Stakeholders	Role or connection to the project	Benefits of involvement	Project Phase (Project and Vision)	Level of interest	Level of influence (using IAP2 matrix)	Level of impact
Strategic Projects					Significant level of influence (if required to go to these committees)	
Active NPDC Projects	Lead the community – behaviour change Potential to link to community engagement and intel that is planned or has gone before and to maximise capturing feedback, to minimise SH engagement fatigue To be kept informed before consultation	Provide intel / feedback from other projects relevant to ITP Technical knowledge	P	Moderate	Inform, involve Medium	Moderate
Venture Taranaki	Awareness of the transport vision for the district Provide input to the vision from a tourism point of view and the future of the district	A voice from the tourism sector	V	Moderate to low	Inform Medium	Moderate / low
NP Partners	Awareness of the transport vision for the district	Connection for NP Partners projects that may have future connection to the ITP	V	Low	Inform Medium	Moderate / Low impact
Delwyn Masters/ Ben Kohlis	NPDC MarComms – Infrastructure Comms Advisor and MarComms Lead	Risk radar – avoiding engagement fatigue, knowing what else the community is being asked for	P + V	Moderate	Inform, consult and collaborate Medium	Moderate
TRC Sarah Heistand-Transport Manager Fiona Ritson – Senior Policy Analyst	Governance Collaboration of transport plans for the region Ensure consistent language and vision	Common approach across region	P + V	Significant	Inform, consult, involve, collaborate Medium	Significant
Stratford DC	Collaboration of transport plans for the region Ensure consistent language and vision	Consistent approach across region – via TRC Relevant info	V	Low	Inform Low	Low
South Taranaki DC	Collaboration of transport plans for the region Ensure consistent language and vision	Consistent approach across region – via TRC Relevant info	V	Low	Inform Low	Low
Local MP Labour	VKT – emissions reduction (interest)	Providing a Central Government lens	V	Moderate	Inform	Moderate

Stakeholders	Role or connection to the project	Benefits of involvement	Project Phase (Project and Vision)	Level of interest	Level of influence (using IAP2 matrix)	Level of impact
National Greens		Central Govt lens and how this relates to the region			Low	
Ministry of Education Primary / Secondary	Provide intel relevant to their school and community	Influence behaviours change in students and their families	P + V	Moderate	Inform, consult Medium level of influence	Moderate
Kainga Ora	Provide intel relevant to their residents	Data and info Outlet to talk to the hard-to-reach voices	V	Moderate	Inform, consult Medium	Moderate
Te Pukenga – WITT	Provide intel relevant to their students	Outlet to reach tertiary students Data and info	P + V	Moderate	Inform, consult Low	Low
DOC	Connection to the land	Information – various land use Future of DOC land areas – any impact on transportation	V		Inform Low	Low
NZ Police	Informed and to be involved with relevant emergency management needs in transport	Provide data – as crashes / accidents	P + V	Moderate	Inform, consult Medium	Moderate
Emergency Services Fire St John	Informed and to be involved with relevant emergency management needs in transport	As above	P + V	Moderate	Inform, consult Medium	Moderate
Civil Defence	Considerations with accessibility to get in and out of the region, now and future planning	Emergency a management of district	P + V	Moderate	Inform, consult Medium	Low
Te Whatu Ora –Taranaki DHB	To be kept informed Provide input from a health perspective	Links to community groups / channels Data on green health and active modes	P + V	Moderate	Inform, consult, involve Medium	Moderate
Road Transport Association	Key road users considerations – expertise in trucking	Expertise in relevant transport mode Data Influence change on staff	P + V	Significant	Inform, involve, consult, collaborate Medium	Significant
AA	Key road users considerations – all modes (?)	Expertise in relevant transport mode	P + V	Significant	Inform, involve, consult, collaborate	Significant

Stakeholders	Role or connection to the project	Benefits of involvement	Project Phase (Project and Vision)	Level of interest	Level of influence (using IAP2 matrix)	Level of impact
		Data Influence change on staff			Medium	
Heavy Haulage	Key road users considerations – large load transportation	Expertise in relevant transport mode. Data Influence change on staff	P + V	Significant	Inform, involve, consult, collaborate Medium	Significant
KiwiRail	Informed on future vision and how rail could or could not play a part	Provide rail expertise and information Understand their long-term vision for rail in the region	P + V	Moderate	Inform, consult, involve Medium	Moderate
Cycling Advocates Facebook Jen O'Connell – key contact	Informed on future vision and how cycling fits in future planning	Understand vision Influence Behaviour change in their groups and reach target audiences	P + V	Significant level of interest.	Inform, consult, involve Low	Med/Low impact
Papa Rererangi -NP Airport	Informed on future vision and how air travel plays a part	Long term vision Link airport to city – realising the other transport benefits	V	Moderate	Inform Low	Low
Motorcycle groups	Informed on future vision and how motorcycling fits in future plans	Tap into networks to have a voice	V	Significant level of interest	Inform, consult Low	Significant
E-scooter groups	Informed on future vision and how E-modes fits in future plans	Tap into networks to have a voice	V	Significant	Inform, consult Low	Significant
Taxi / Uber / Shuttles	Informed on future vision and how hired transport fits in future plans	Tap into networks to have a voice	V	Significant	Inform, consult Low	Significant
Walking Advocate Groups	Informed on future vision and how walking fits in future plans	Understand vision Influence Behaviour change in their groups and reach target audiences	P + V	Significant	Inform, consult Low	Significant

Stakeholders	Role or connection to the project	Benefits of involvement	Project Phase (Project and Vision)	Level of interest	Level of influence (using IAP2 matrix)	Level of impact
Taranaki community Drill down on demo's	Sharing the project and vision and in turn a sense of ownership of their future Hearing the community and what they want, providing ideas and insights	Behaviour change	P + V	Significant	Inform, consult, involve High level of influence	Moderate
Age Concern	Provide input – capturing this sector of the audience	Link to the older audience to impart info	P + V	Moderate	Inform, consult, involve Medium level of influence	Moderate
Grey Power	Provide input – capturing this sector of the audience	Link to the older audience to impart info	P +V	Moderate	Inform, consult, involve Medium level of influence	Moderate
Taranaki CoC & BARA Business community	Provide input – capturing business sector of the audience	Link to business community and relevant data	P + V	Moderate	Inform, consult Medium level of influence	Moderate / Significant
Accessibility	Provide input and a voice	As with information and expertise from those with accessibility issues and how thing could be done better	P +V	Moderate	Inform, consult Medium level of influence	Moderate / Significant
Media Radio Print Socials Newsletters – via various SH groups Outdoor	Information to the general public - proactive	Telling the stories Informing Reach	P + V	Mod/ Significant	Inform High	Significant
AA	Informed on future vision and the part road users in general will play	Transportation data. Access to customer data, where appropriate	P + V	Moderate	Inform, consult Medium	Moderate
Sport Taranaki	Input from a healthy living view	Providing expertise and data from health and wellbeing	V	Low	Inform Low	Low
Engineers Institute	Expertise from colleagues who may have insight from similar projects	Possibly to use an outreach to difference audiences	V	Low	Inform Low level of influence	Low

Stakeholders	Role or connection to the project	Benefits of involvement	Project Phase (Project and Vision)	Level of interest	Level of influence (using IAP2 matrix)	Level of impact
Other councils	Expertise from colleagues who may have insight from similar projects	Information	V	Low	Inform Low	Low
Rural Women's Institute	Rural voices	Rural voice	V	Low/ moderate	Inform, involve Low level of influence	Moderate
Federated Farmers	Rural voices	Rural voice	V	Low/ moderate	Inform, involve Low	Moderate
EV's & Climate Action Framework– Denise Houston NPDC PM	Considerations with wider work in this space and how this project needs to link with outcomes.	Use of contacts Common language Expertise	P + V	Moderate	Inform, consult, Low	Significant
Climate Action Groups	Considerations with wider work in this space and how this project needs to link with outcomes.	Contacts Expertise Common language	V	Moderate	Inform, consult Low	Significant
Taranaki Young Professionals	Voice 25 – 35 year olds	Young professional voice and networks/business connections	V	Low/moderate	Inform, consult Low	Low /Moderate

C

Appendix C – ILM Meeting Notes

New Plymouth Integrated Transport Plan

Investment Logic Mapping Workshop

27 September 2022

Post Workshop Pack

Background and Scope

DRAFT

The New Plymouth Integrated Transport Plan is being developed as a:

- District Wide Transport Plan
- Based on a 30+ year timeframe
- With an approximate growth of 19,000 people over 30 years

This Investment Logic Map is being prepared to inform the development of a Strategic Case.

Future stages to be confirmed but may include a Transport Vision, Integrated Transport Programme Business Case.

Contributing Factors

DRAFT

NPDC

High Growth - Congestion

- There has been high growth over the last decade
- Population growth is expected to continue
- More people & goods – high proportion of Cars to People
- High growth, sprawling growth > coastal spread

Affordability > Achievability – Whole of life cost

- Difficult societal change/understanding
- Driving is easy
- Car ownership – needed to participate in Taranaki City

Separation/Segregation

- Lots of State Highways
- Along a linear city. SH & Railway
- Hard to access the coast – links to coast

City Configuration

- Low inner city residential pop.
- 3 SHs through the inner city
- Long linear urban corridor
- However, > Fringe growth and Ribbon Development
- Increasing/improving density for under city residential

Historical Transport Planning

- Limited direction/policy for decision makers for active modes and public transport
- Only recent support for more sustainable transport options
- Plans without actions (Needs to be achieved) – Aspirational – Deliverable

Health and Environmental Impacts

- Amenity impact – noise and dust
- Coastal Erosion > Waitara East > Adaptation

High VKT per capita

- Very car centric – double car ownership
- PT is not viewed well
- High travel in-out i.e. Hawera > N.P

Public Transport

- Dispersed employment i.e Hospital Carpark – low usage
- Limited inner city development opportunity - increased difficult.
- No/Limited Commuter Bus > Bell Block
- Experience is poor
- Parking is cheap

Safety

- Highest crash/exposure risk for cyclist – 5 DSIs recorded & risk in the country
  - Why? Right People Right Roads
- “Don’t feel safe” – even pedestrian crossing

Port Location & Access

- “Blue highway” - Shipping routes
  - Australia
  - Nelson

Economy

- Commodity based economy – freight 20% increase
- Highest GPD per capita

DRAFT Problem Statement 1

Contributing Factors	Cause	Consequence	Benefit Statements

(Historical) Social norms, lifestyle

Long linear urban corridor

Limited direction/policy for decision makers for active modes and PT

Regional service center - New Plymouth

No/limited commuter bus

Highest crash/exposure risk for cyclists

The urban areas have mainly developed in a linear form along the coast with low density residential developments

resulting in →

high usage of private vehicles and increasing transport costs for the community, especially lower socio-economic groups

Decreased reliance on cars as the primary mode of transport

Healthier communities from more people walking and cycling

Evidence:

- Increasing average trip distances to work and school
- Residential density
- Poorly (increasing distance) located residential areas – distance to amenities and services (i.e. schools)
- VKT per capita (check trend)

Evidence:

- Percentage of active mode use (check trend)
- Health impacts from high car use for most trips
- Journey to work and journey to school %

Additional benefits (not discussed in the workshop) based on Waka Kotahi Benefits Framework:

10.1 Impact on user experience of the transport system
10.2 Impact on mode choice
10.3 Impact on access to opportunities

2.1 Impact on perceptions of safety and security
3.1 Impact of mode on physical and mental health

DRAFT

NPDC

DRAFT Problem Statement 2

Contributing Factors	Cause	Consequence	Benefit Statements

Contributing Factors

- High freight function and supporting regional network
- Linear urban development and low density and dispersed employment
- Parking low cost with high availability across city and centres
- 3 SH's – 1 way network - freight focus
- Car centric and high car ownership per capita
- Historical investment in transport infrastructure and policy has been roading and highway focused

Cause

The network is configured to prioritise private vehicles over other modes

resulting in →

Consequence

issues across the city and towns including severance (centres on SHs, between the coast and communities and residential areas and key destinations), and declining amenity (noise, vehicle traffic, dust and pollution)

Benefit Statements

- Improved access to the coast, schools and services
- Centres along key corridors that are more engaging and enjoyable

Evidence:

- Number of interregional freight corridors and SH in council area and region
- Percentage of freight on corridors
- Safe, connected and/or separated cycleways
- Number of kms of State Highways or Arterial roads in council area

Evidence:

- % of journey undertaken by cars and freight
- % or split of Freight use Road / Rail
- Safety risk/exposure for active modes
- Modal split - % journey to work and school
- % of network which is 'shared use' space within urban centres

Additional benefits (not discussed in the workshop) based on Waka Kotahi Benefits Framework:

4.1 Impact on system vulnerabilities and redundancies
5.1 Impact on system reliability
5.2 Impact on network productivity and utilization
10.3 Impact on access to opportunities

2.1 Impact on perception of safety and security
3.2 Impact of air emissions on health
3.3 Impact of noise and vibration on health
10.1 Impact on user experience of the transport system
10.2 Impact on mode choice

DRAFT

NPDC

Contributing Factors	Cause	Consequence	Benefit Statements

DRAFT Problem Statement 3: Aging Population

Dispersal key destination
- The Valley stopping CBD
- Hospital
- Schools
- Services

Poor MoE & PT service coordination

Dispersed population – minimal residential living in the city centre

Perception of safety

Cost for public transport is/was high

Parking is easy and relatively cheap

Public transport is not a competitive, convenient or perceived relatively safe travel option

resulting in →

Low public transport use and poor customer experience

Public transport as a preferred mode of transport for many

Public transport is accessible and convenient

Evidence:
- Frequency – low
- Low / limited number of services
- Low frequency and network coverage
- Time of day
- Slow travel times
- Bus stops not in new developments

Evidence:
- Number of public transport users
- Demographics of public transport users
  - Young adults
  - Elderly
- Survey results – public transport user experience

Additional benefits (not discussed in the workshop) based on Waka Kotahi Benefits Framework:

2.1 Impacts on perception of safety and security
5.1 Impact on system reliability
10.1 Impact on user experience of the transport system
10.3 Impact on access to opportunities

3.1 Impact of mode on physical and mental health
10.2 Impact on mode choice

DRAFT

NPDC

Contributing Factors	Cause	Consequence	Benefit Statements

DRAFT Problem Statement 4: Safety and Active Modes

Journey to Work Distance. Economic Function

High number of conflicts within city and town centres – where there are freight networks

Low Level of Service
- Lighting for off road
- Separation along high speed/volume
- Difficult intersections
- Key links

Primary schools. Close but not safe

Linear network

A fragmented network for walking and biking with poor (unsafe) links/ connections

resulting in →

Safety issues, poor perception of the network and low active mode uptake

A safe city to walk and cycle

Healthy communities from people being more active

Evidence:
- L.O.S for pedestrians
- L.O.S for cyclists
- New residential developments without / minimal connected infrastructure for active modes
- % of primary cycling network which is safe / separated and continuously connected
- # of unsafe active mode intersections

Evidence:
- DSIs for active modes
- Risk exposure rating
- Percentage walkers and biking to work and school
- Recreational walking and cycling of infrastructure
- Increased active mode growth is slower than car use (AADT growth on main corridors).

Additional benefits (not discussed in the workshop) based on Waka Kotahi Benefits Framework:

2.1 Impacts on perception of safety and security
10.1 Impact on user experience o the transport network

3.1 Impact of mode on physical and mental health
8.1 Impact on greenhouse gas emissions
10.2 Impact on mode choice
10.3 Impact on access to opportunities

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NPDC

Opportunities

DRAFT

An Attractive Multi-modal Network

- A walkable & bikeable city
- Supports a nature-based lifestyle
- Long term corridor protection
- Taranaki 2050

Connectivity

- A great place to live and work
- Improved long term planning to decrease average trip distances and improve access

Rail / Port

- ‘Blue Highway’ and increased freight demand to South Island and Australia
- Increased use and % of freight task
- Reduced conflict for freight accessing the port
- Improved freight efficiency for the region

Inner City Living

- Desire to live in town
- Strong developer interest
- Medium density growth
- A change in investment ideology

Prosperity, Environment, Sustainability

- Economic opportunities through reduced urban sprawl
- Good urban developments and increase in green space
- Integration with other infrastructure and investments
- Climate change – reduced carbon emissions
- Safe modal choices

NPDC

New Plymouth District Council Integrated Transport Plan

INVESTMENT LOGIC MAP
Activity

PROBLEM ▶ **BENEFIT**

Public transport is not a competitive, convenient to access from active modes or perceived relatively safe travel option *resulting in* low public transport use and poor customer experience*
(35%)

The urban areas have mainly developed with low density developments *resulting in* high usage of private vehicles and increasing transport costs for the community, especially lower socio-economic groups
(30%)

The network is configured to prioritise private vehicles (including freight) over other modes *resulting in* issues across the city and towns including severance (centres on SHs, between the coast and communities and residential areas and key destinations), and declining amenity (noise, vehicle traffic, dust and pollution)
(20%)

A fragmented network for active modes (walking, cycling and micro-mobility) with poor (unsafe) connections *resulting in* safety issues, poor perception of the network and low active mode uptake
(15%)

25%
10%
5%
20%
5%
5%
10%
5%
15%

Public transport is accessible, convenient and the preferred mode of transport for many
(30%)
- KPI 1: Public transport travel times (average, variability
- KPI 2: PT user surveys/annual satisfaction surveys
- KPI 3: % of population within 400/800 metres PT walking catchments
- KPI 4: Public transport mode share for journey to work / school trips

Decreased reliance on cars as the primary mode of transport and increased walking, cycling and public transport use
(35%)
- KPI 1: CO2 transport related emissions
- KPI 2: Journey to work by single occupancy vehicle and VKT per capita
- KPI 3: Proportions of public transport, walking and cycling for journey to work trips
- KPI 4: Proportions of public transport, walking and cycling for journey to school trips

Improved access to amenities (coast, schools and services) along engaging and enjoyable transport corridors
(15%)
- KPI 1: Level of Service for pedestrians and cyclists on key routes (to schools, amenities and services)
- KPI 2: Comparative travel times between modes (PT vs private vehicle) between key locations
- KPI 3: Percentage of residents living within X km (walking catchment)of local centres
- KPI 4: Foot traffic in the CBD and town centres and average length of visit
- KPI 5: Percentage of freight on appropriate arterial corridors and average freight travel times

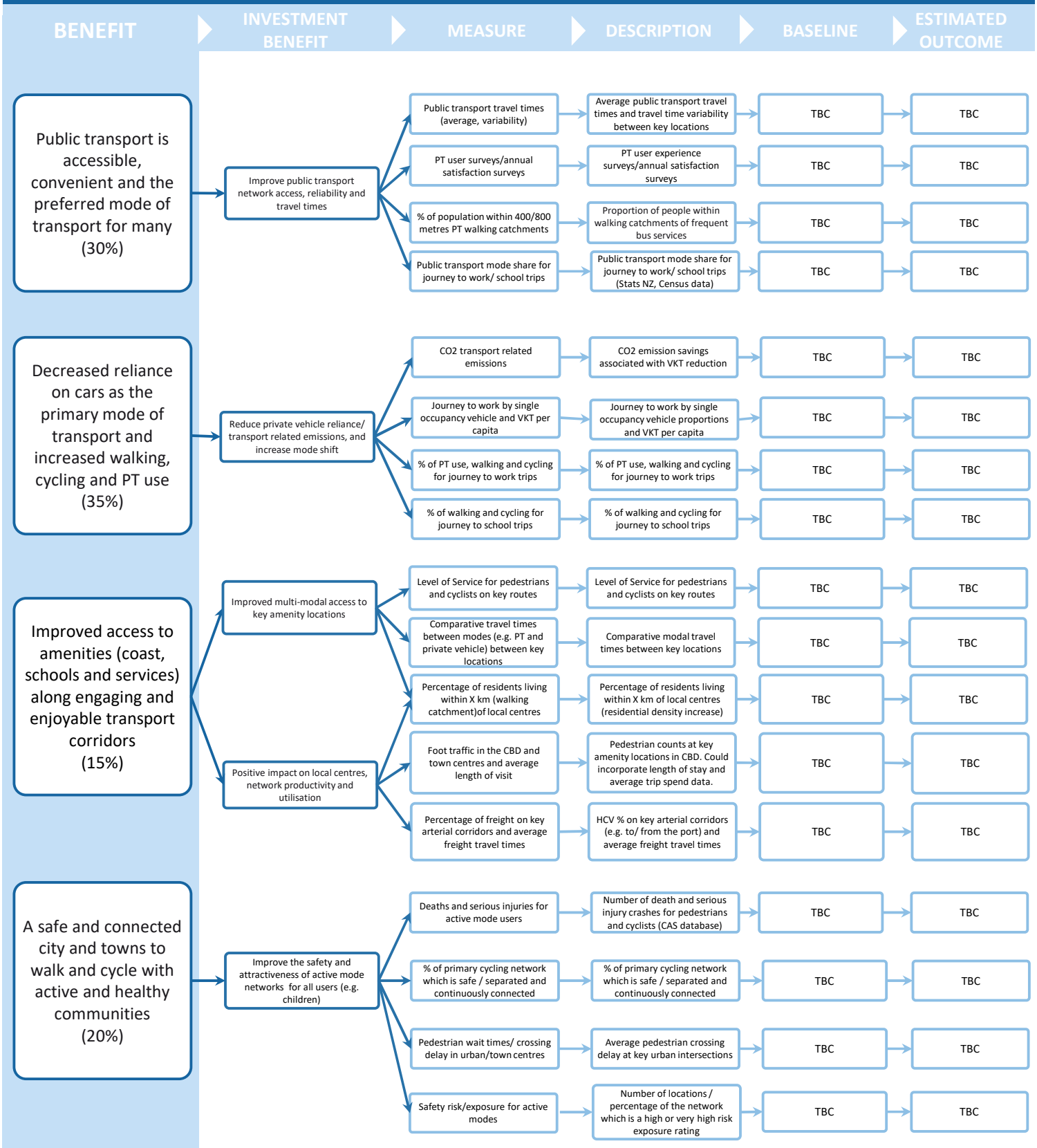
A safe and connected city and towns to walk and cycle with active and healthy communities
(20%)
- KPI 1: Deaths and serious injuries for active mode users
- KPI 2: % of primary cycling network which is safe / separated and continuously connected
- KPI 3: Pedestrian wait times/ crossing delay in urban/town centres

* PT is delivered by TRC

Business Problem Owner:	Rui Leitao, Transport Manager, New Plymouth District Council	Version no:	1.0
Facilitator:	Tim Eldridge	Initial Workshop:	27/09/2022
Accredited Facilitator:	No; Accredited business case practitioner	Last modified by:	GHD 19/06/2023
		Template version:	5.0

New Plymouth District Council Integrated Transport Plan

BENEFIT MAP



RESPONSIBILITY FOR DELIVERING THE BENEFITS		
Name	Position	dd/mm/yyyy

Business Problem Owner: Rui Leitao, Transport Manager, New Plymouth District
Facilitator: Tim Eldridge
Accredited Facilitator: No, Accredited business case practitioner

Version no: 1.0
Initial Workshop: 11/10/2022
Last modified by: GHD 19/06/2023
Template version: 1.0

Te Kaunihera-ā-Rohe o Ngāmotu
New Plymouth District Council

INFRASTRUCTURE GROUP

WWMS-FM-1102 EXTERNAL MEETING ATTENDANCE RECORD

Date: 27 September 2022

Meeting held by:
(e.g. Name and Position of Internal Employees or Name and Company Name for External Trainers)

NAME	COMPANY	POSITION
Tim Eldridge	GHD	Project Director and Principal

Meeting Purpose/Agenda:

New Plymouth District Council is developing an Investment Logic Map for the Integrated Transport Plan (ITP).

The purpose of the study is to gain understanding of the problems our district faces when it comes to transportation. The outcome of this workshop will feed into the ITP and help lead the development of the Programme Business Case.

'Investment logic mapping' (ILM) is a structured workshop that bring together key stakeholders to ensure that there is early engagement on outcomes, benefits and any issues before any decision is made. The workshop is an informed discussion based on sound investment management principles that will:

• Give an opportunity for different perspectives to be shared and respectively challenged

• Creates an opportunity to draw links across organisations about what is known

• Provides a clearer view of what we know from the people who know the most, and the quality of the evidence available which will underpin the discussion

The ILM process and the 'investment management' terminology used during the workshop will be clearly explained by our facilitator Tim Eldridge. There is no preparation required by participants for the workshop, just your knowledge of the problems (or opportunity) being experienced or anticipated in the future.

Attendees:

NAME	REPRESENTING	EMAIL
Rui Leitao	NPDC	Rui.Leitao@npdc.govt.nz
Stuart Knarston	NPDC	Stuart.Knarston@npdc.govt.nz
Mikaela Addy	NPDC	Mikaela.Addy@npdc.govt.nz
Natalie Wiseman	NPDC	Natalie.Wiseman@npdc.govt.nz
Jacob Stenner	NPDC	Jacob.Stenner@npdc.govt.nz
Lisa Malde	Waka Kotahi	lisa.malde@nzta.govt.nz
Sarah Loynes	Waka Kotahi	sarah.loynes@nzta.govt.nz
Sarah Mako	Te Atiawa	sarah@teatiawa.iwi.nz
Fiona Ritson	TRC	fiona.ritson@trc.govt.nz

Sarah Hiestand	TRC	Sarah.Hiestand@trc.govt.nz
Tim Eldridge	GHD	Tim.Eldridge@ghd.com

Te Kaunihera-ā-Rohe o Ngāmotu
New Plymouth District Council

INFRASTRUCTURE GROUP
WWMS-FM-1102 EXTERNAL MEETING ATTENDANCE RECORD

Date: 11 October 2022

Meeting held by:
(e.g. Name and Position of Internal Employees or Name and Company Name for External Trainers)

NAME	COMPANY	POSITION
Tim Eldridge	GHD	Project Director and Principal

Meeting Purpose/Agenda:

This is a follow up workshop from Investment Logic Mapping Workshop on the 27th of September 2022.

New Plymouth District Council is developing an Investment Logic Map for the Integrated Transport Plan (ITP).

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Attendees:

NAME	REPRESENTING	EMAIL
Rui Leitao	NPDC	Rui.Leitao@npdc.govt.nz
Stuart Knarston	NPDC	Stuart.Knarston@npdc.govt.nz
Mikaela Addy	NPDC	Mikaela.Addy@npdc.govt.nz
Natalie Wiseman	NPDC	Natalie.Wiseman@npdc.govt.nz
Jacob Stenner	NPDC	Jacob.Stenner@npdc.govt.nz
Juliet Johnson	NPDC	juliet.johnson@npdc.govt.nz
Paul Murphy	Waka Kotahi	paul.murphy@nzta.govt.nz

Sarah Loynes	Waka Kotahi	sarah.loynes@nzta.govt.nz
Shawn Scott	Waka Kotahi	Shawn.scott@nzta.govt.nz
Tim Eldridge	GHD	Tim.Eldridge@ghd.com
Ellen Donaldson	GHD	Ellen.Donaldson@ghd.com

INVESTMENT LOGIC MAP

Activity

PROBLEM	BENEFIT

The network is built and operated favouring cars and when coupled with limited alternative options *results in* low levels of public transport, active modes and rail use
40%

Dispersed urban development with limited access to local amenities, services and schools *resulting in* high car dependency, compounding inequitable access for lower socio-economic communities.
35%

The condition of the region's primary roading network (including state highways and key local roads) is inconsistent, and in some parts poor, *resulting in* declining outcomes (increased operating costs and delays) for inter and intra regional travel and freight, as well as declining safety for all road users
25%

20%
15%
5%
15%
20%
5%
20%

Increased safe and connected active mode (walking, cycling and micro-mobility) travel choices as well as reduced distances to services and amenities to achieve healthier communities
(35%)
KPI 1: Transport related CO2 emissions
KPI 2: Total vehicle kilometres travelled per capita
KPI 3: Total kilometres of safe and connected separated cycleways and shared paths
KPI 4: Percentage of active mode use for journey to work and school trips
KPI 5: Local/regional trips – average trip distance
KPI 6: Transport system safety perceptions - Customer surveys
KPI 7: Deaths and serious injury crashes for active mode users

Reduced reliance on private vehicles through increased use of public transport
(40%)
KPI 1: Car ownership rates (Statistics NZ)
KPI 2: Mode share for commuter trips for modes other than single occupancy vehicle
KPI 3: Percentage of active mode and public transport use for journey to work and school trips
KPI 4: Total public transport network coverage across region (kms or towns connected to network)
KPI 5: Number of residents living within X km of high frequency public transport
KPI 6: Average household spend on transport

Safe, reliable, resilient and efficient movement goods on road and rail
(25%)
KPI 1: Deaths and serious injury crashes for all users
KPI 2: Average journey times for freight between key destinations (road and rail)
KPI 3: Vehicle operating costs on key routes
KPI 4: Travel disruption - Duration and frequency of unplanned closures
KPI 5: Resilience Levels of Services for key routes
KPI 6: Number and length of HPMV routes
KPI 7: Throughput (tonnage) and % of freight movement by road and rail

Business Problem Owner:	Fiona Ritson, Senior Policy Analyst, Taranaki Regional Council	Version no:	0.4
Facilitator:	Tim Eldridge	Initial Workshop:	27/09/2022
Accredited Facilitator:	No; Accredited business case practitioner	Last modified by:	GHD 04/12/2022
		Template version:	5.0

Taranaki Regional Land Transport Plan

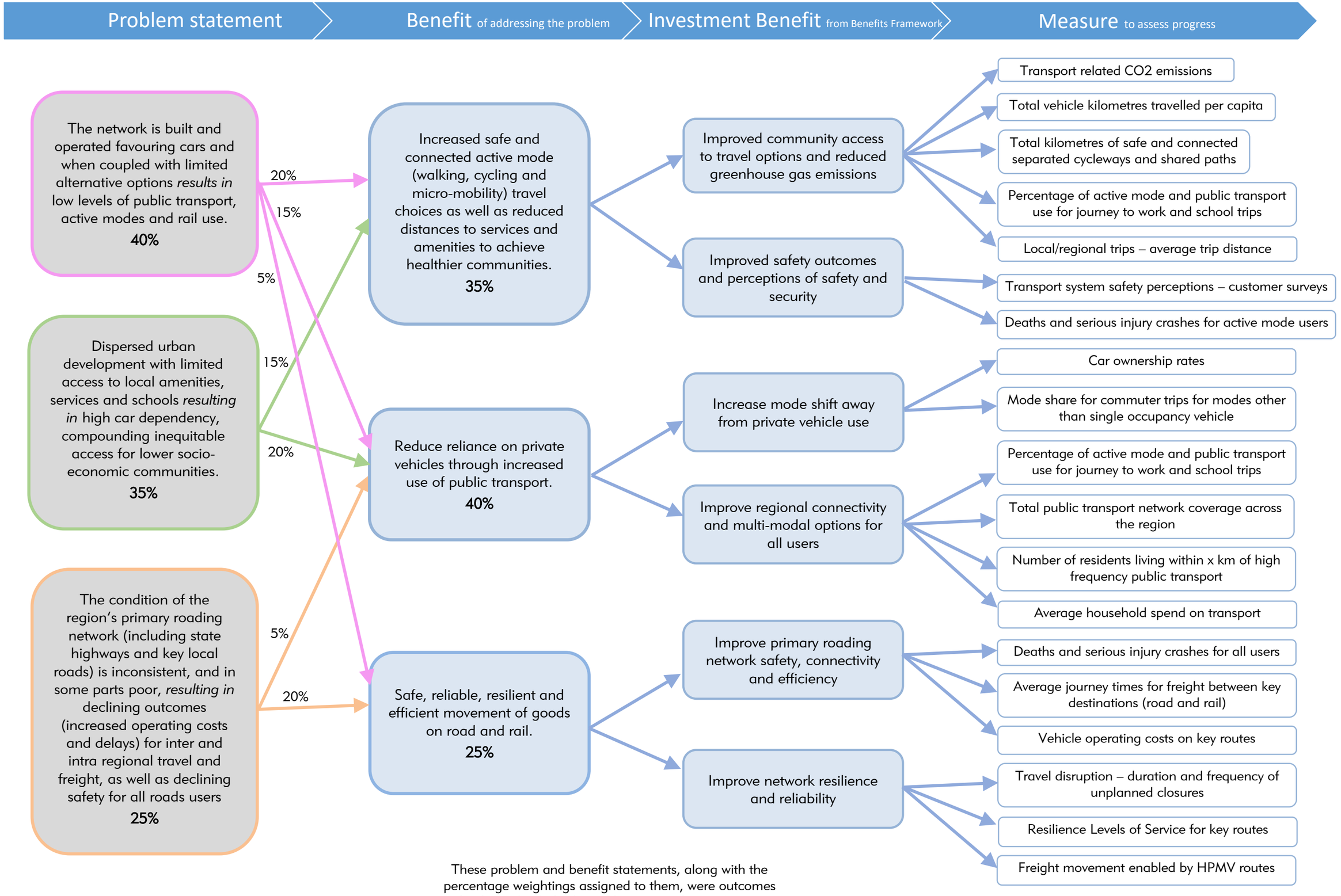
BENEFIT MAP

BENEFIT	INVESTMENT BENEFIT	MEASURE	DESCRIPTION	BASELINE	ESTIMATED OUTCOME
Increased safe and connected active mode (walking, cycling and micro-mobility) travel choices as well as reduced distances to services and amenities to achieve healthier communities (35%)	Improved community access to travel options and reduced greenhouse gas emissions	Transport related CO2 emissions	Carbon emissions related to VKT reductions	TBC	TBC
		Total vehicle kilometres travelled per capita	Total vehicle kilometres travelled per capita	TBC	TBC
		Total kilometres of safe and connected separated cycleways and shared paths	LOS A or B with continuous connections to town centres, services and amenities	TBC	TBC
		Percentage of active mode and public transport use for journey to work and school trips	Percentage of active mode and public transport use for journey to work and school trips	TBC	TBC
		Local/regional trips – average trip distance	Local/regional trips – average trip distance (kms)	TBC	TBC
	Improved safety outcomes and perceptions of safety and security	Transport system safety perceptions - Customer surveys	Safety perceptions around journey, modes, personal safety etc.	TBC	TBC
		Deaths and serious injury crashes for active mode users	Number of death and serious injury crashes for active mode users (CAS database)	TBC	TBC
Reduced reliance on private vehicles through increased use of public transport (40%)	Increase mode shift away from private vehicle use	Car ownership rates – Statistics NZ	Car ownership rates – Statistics NZ	TBC	TBC
		Mode share for commuter trips for modes other than single occupancy vehicle	Mode share for commuter trips – combined % for modes other than single occupancy vehicle	TBC	TBC
		Percentage of active mode and public transport use for journey to work and school trips	Percentage of active mode and public transport use for journey to work and school trips	TBC	TBC
	Improve regional connectivity and multi-modal options for all users	Total public transport network coverage across region	Total public transport network coverage across region (kms or towns connected to network)	TBC	TBC
		Number of residents living within X km of high frequency public transport	Number of people within 800 metres of a high frequency (10-15 mins in peak period) bus service	TBC	TBC
		Average household spend on transport	Amount and % of average income	TBC	TBC
Safe, reliable, resilient and efficient movement goods on road and rail (25%)	Improve primary roading network safety, connectivity and efficiency	Deaths and serious injury crashes for all users	Number of death and serious injury crashes for all users (CAS database)	TBC	TBC
		Average journey times for freight between key destinations (road and rail)	Average journey times for freight between key destinations (90th percentile)	TBC	TBC
		Vehicle operating costs on key routes	Cost per vehicle type per 100 km/1m kms travelled	TBC	TBC
	Improve network resilience and reliability	Travel disruption -Duration and frequency of unplanned closures	Travel disruption -Duration and frequency of unplanned closures (TREIS)	TBC	TBC
		Resilience Levels of Services for key routes	Resilience Levels of Services for key routes. I.e. lifeline routes to hospitals, schools and the port	TBC	TBC
		Freight movement enabled by HPMV routes	Number and length (kms) of HPMV routes	TBC	TBC

RESPONSIBILITY FOR DELIVERING THE BENEFITS		
Name	Position	dd/mm/yyyy

Business Problem Owner:	Fiona Ritson, Senior Policy Analyst, Taranaki Regional Council	Version no:	0.4
Facilitator:	Tim Eldridge	Initial Workshop:	14/10/2022
Accredited Facilitator:	No; Accredited business case practitioner	Last modified by:	GHD 04/12/2022
		Template version:	1.0

Taranaki Regional Transport – Investment Logic Map integrating the Benefit Map with the Investment Logic Map for ease of reference



These problem and benefit statements, along with the percentage weightings assigned to them, were outcomes of independently facilitated Investment Logic Mapping (ILM) workshops on 27/09/2022 and 14/10/2022.

Summary of existing strategic framework (RLTP2021) – to be updated based on new ILM (Nov2022) and C&E (Mar-Apr2023)

Ministry of Transport's Outcomes Framework

The purpose of the transport system is to improve people's wellbeing, and the liveability of places

Outcome 1	Outcome 2	Outcome 3	Outcome 4	Outcome 5
Inclusive access	Healthy and safe people	Environmental sustainability	Resilience and security	Economic prosperity

The Ministry of Transport's Outcomes Framework provides the overarching national direction.

Thirty-year vision

A vibrant, resilient and connected region, with a safe transport system enhancing liveable places

The 30-year vision describes the region's desired long-term future state.

Thirty-year strategic objectives

Integrated
An integrated and collaborative approach to transport and land use planning that maximizes transport effectiveness

Enabling
An effective, efficient and resilient land transport system that enhances economic wellbeing, growth and productivity in the Taranaki region and beyond

Safe and healthy people
Protecting people from transport-related deaths and serious injuries, and making active travel an attractive option

Accessible
A people-focused, multi-modal land transport system that caters for the different and changing needs of transport users, connects communities and enables participation

Resilient and responsive
A land transport system that is robust, responsive to changing needs and resilient to external influences, including climate change

Environmentally sustainable
An energy efficient and environmentally sustainable land transport system

The 30-year strategic objectives describe what we want to accomplish to deliver this vision.

Policies

Integrated	Enabling	Safe and healthy people	Accessible	Resilient and responsive	Environmentally sustainable
Take a one network approach to managing the transport system. I1 Manage and develop the transport network in a way that provides for all modes of transport in an integrated manner I2 Ensure road standards are developed to meet ONF requirements and support land use change. I3	Removal of constraints to growth in freight, tourism and people movement, particularly on inter-regional corridors. G1 Focus on effective and efficient strategic road and rail corridors, particularly between inter-regional ports. G2 Ensure those roads in the region serving tourism and the productive sector are fit for purpose. G3 Protect and promote the existing rail corridors. G4	Promote infrastructure and safety improvements on strategic corridors. S1 Reduce risk on high risk rural roads, intersections and urban arterials with a particular focus on vulnerable road users. S2 Support the aims of *Road to Zero* and Roadsafe Taranaki. S3	Protect and enhance the accessibility of the land transport system to all people in the region to enable community participation and ensure appropriate access to services. A1 Optimise existing capacity in the transport network through travel demand management measures and improved use of technology. A2 Ensure a range of travel options are available to the region's residents, including the transport disadvantaged. A3	Improve the resilience of transport infrastructure, particularly to geological risks and the impacts of climate change. R1 Protect routes with lifeline functions. R2	Ensure the development and maintenance of transport infrastructure is undertaken in a manner that minimises adverse environmental impacts. E1 Encourage and develop transport choices that promote energy efficiencies and public health. E2 Encourage and develop transport infrastructure and alternative technology that minimises carbon emissions (e.g. electric vehicle infrastructure). E3

The policies we have adopted to help us achieve these objectives.

Ten-year headline targets

Improving safety
A 40% reduction in deaths and serious injuries

Increasing mode shift
More trips made by walking, cycling and public transport throughout the region

Improving reliable connectivity
Less travel disruption for road traffic

The 10-year headline targets focus on some key indicators of change as we move towards the Plan's vision.

Ten-year transport investment priorities

Safety
Improve safety at high-risk intersections and on high-risk roads

Resilience
Improve resilience and responsiveness of the transport network, with a focus on addressing ageing infrastructure and the impacts of logging traffic on state highways and local roads

Choices
Make walking, cycling and public transport a safe and attractive choice for more trips throughout the region

Access
Improve multi-modal access to key regional destinations, including the port, airport and hospitals, for people and freight

Decarbonise
Promote sustainable growth that recognises environmental aspirations and supports a less carbon intensive transport network

The 10-year transport investment priorities are the most urgent and significant areas requiring investment in the short to medium term.

D

Appendix D – PBC Workshop Notes

1 Long list intervention ideas workshop

Date: 22/03/2023

Present: Rui Leitao, Mikeala Addy, Natalie Wiseman, Fiona Ritson, Stuart Knartson, Nichola Maclean, Shawn Scott, Sarah Mako, Sarah Loynes, Vinuka Nanayakkara, Megan Taylor, Michael Town, Anne Jacobsen

Apologies: Jacob Stenner

Key actions:

1	**PBC team to organise workshop/miro board with Iwi, Hapu and Elected Members**
2	**PBC team and Nichola to work on sound comms and engagement plan**
3	**Everyone: send options/ideas to Michael or Megan (up until 29th March 2023)**
4	**PBC team to fit options into several different programmes and assess on high level**

Karakia and outline PBC process

Introductions from Sarah Mako, Vinuka Nanayakkara, Sarah Loynes
Luca is new in WK
Rui introduces the Transport strategy background and vison

Purpose of the workshop

Strategic Case Overview

- Rui: PM comment about resilience, is resilience a problem for us?
    - Whaiwakaio bridge
    - Minor improvements to communities with one road in and one out
    - Should we consider resilience in terms of GDP?
    - Shawn WK: Resilience is aligned around resilience and is a key priority
        - Does not distract from VKT component
        - Transport Choices
    - Vinuka: consider how thinly you want to spread benefits
        - What's the drive? Safety? Resilience?
    - Rui: local road
    - Michael: do you have resilience evidence?
    - Sarah: Road is not the issue with resilience
        - Medical, food, alternative route to essential services? Can the people in Waitara and Bell Block survive
        - Focus off network itself but what the network can achieve
- Vinuka: How broad is the BC looking at?
    - Is it possible to revise growth plan and strategy?
    - Megan: Most definitely, critical to the future and key part of proposed district plan
    - Michael: Looked at in SC through growth areas/mixed use

Discussion points

- Michael: Any other comments since we already touched on this?
    - Sarah L: Options might have higher maintenance?
    - Rui: Council is happy to fun buses than build roads (WK agrees)
    - Sarah: Gaps might be suitability of trips by PT in short trips?
        - Some corridors have difficulty to make a competitive

        - Might be more worthwhile to focus on Active modes for some corridors
        - Rui: Agree, radical change is needed as e.g. Cycling
- Vinuka: Potholes in NP
    - Difficult to get across the line
    - Twist into proactive maintenance
    - Active modes, PT and Freight will reduce money spent on maintenance
        - Easier to quantify
- Sarah Mako: Add to SL, focus on growth
    - Building resilience for Whanau in Urenui and other towns away from the centre who have to travel to Marae/work is important aspect
- Michael: VKT reduction Community expectation
    - Rui: This is the most polarising item which requires the most comms and engagement
    - Nicola: How to chunk it down for people to get their head around
    - Rui: WHO impact of climate change
        - Almost past the point of no return
        - Wellbeing aspect, things people can relate to
    - Sarah: Identify champions on how to bring this forward
        - Deep regret of not identifying community groups
        - This area needs more work in SC
        - Convey to public without scaring them
        - Be deliberate with language
    - Michaela and Nicola are working through that
- Michael: Do-minimum and do-nothing?
    - Rui: Status Quo is do minimum, if we weren't doing PBC would be do-minimum so work in
    - Expect the programme to be what is require
    - Go the distance, what are the consequences of not doing this?
    - Luca: do-minimum is compare it towards the base case (clarifies)
    - Anything that is existing funding is do-minimum
    - Vinuka: Consider do-nothing option to show outcomes and implications of doing nothing
    - Sarah L: 30 years? Correct
        - That is fictitious
        - BAU? Demonstrate road constriction and same PT with growth
        - Might be too complex
    - Modelling needs to be well defined
        - Detailed workshop on Do-minimum and BAU
            - Document well
            - Involve
- Any other points to raise?
    - Rui: Evidence Gaps
        - WK has some evidence/projections of emissions
            - Sarah: Emissions per corridor
                - Pollution monitoring site per region
    - Years of lives lost per region
    - Sarah: Land use and PT use missing
        - Megan: Waiting on TRC
    - Sarah: example of areas to demonstrate point of mixed land use
        - Estimates?
        - Mode share of mixed developments (nicer to drive bc of SH)
            - Link to comms and engagement, Can't say anything definite before
- Don’t do a dump/wishlist
    - Megan: test gaps between now and next workshop and identify where gaps are
- Rui: Has to align with

- Sarah: test hybrid of that with focus on longdistance/shortdistance
    - Think about doing a swot analysis or pestal(?) analysis which will identity constraints and opportunities

Longlist (no minutes)

Gaps
Sarah: Have the problem statements been shared with EMs yet?

- Rui: No but interest is there
- Sarah: The EM will ask to test their options so important to talk to them early on
- Helpful to get them into a persona, e.g. think about how you travel to x place with 4 children? As opposed to a technical approach

Rui: Question to Sarah M: Steps and engagement with Iwi?

- Ma kaitiaki forum is the best start

Michael: Any remaining questions?

- Shawn: Delegation to get endorsements?
- Sarah: Don't think so, understand stakeholder engagement is key
    - Demonstrate buy in into process
    - Michael: Pause or in parallel? In parallel
- Sarah: Story needs to be compelling, evidence supports the problems
    - What you are testing is feasible, check in with stakeholders

Sarah L: Approach needs to be confirmed: evidence will be x and this is what we will be testing (weak in cause and effect --> struggle to assess)

Nicola: Scope needs to be clearly defined
Sarah: avoid strong anti-car language T2/T3, point is to increase efficiency

Rui: Comms plan timeframe?
Nichola: engagement high-level ready in April

Meeting closed with Karakia

2 Long list development workshop

Date: 26/04/2023

Present: John Eagles, Mikeala Addy, Natalie Wiseman, Fiona Ritson, Stuart Knartson, Nichola Maclean, Vinuka Nanayakkara, Megan Taylor, Michael Town, Anne Jacobsen, Pam Jenkinson, Kris Butterworth

Apologies: Shawn Scott

Key actions for the PBC team:

1	**NPDC to review the do-min interventions**	**Date**
2	**PBC team to supply longlist interventions and programme info for team to review**	**4 May 2023**
3	**Tidy up language of interventions and add more information on intervention categories**	**4 May 2023**

4	**Diagram indicating the Strategic alignment / logic mapping from the Strategic Case to the longlist categories/themes**	**4 May 2023**
5	**Review District Plan (Future Urban Development Zones) and to to interventions as needed**	**4 May 2023**
6	**Change scale of sifting tool of objective alignment to 1-10 scale with more granularity**	**4 May 2023**
7	**Update fatal flaws to remove cost and create new interventions to areas we can control where required**	**4 May 2023**
8	**Add more detail around VKT fatal flaws and separate out interventions as needed**	**4 May 2023**
9	**Mikaela to send out May workshop dates**	**ASAP**

Intro and recap of work to date
Megan introduces meeting and hands over to Michael to run through agenda
Pam introduces herself and is filling in for Shawn representing Waka Kotahi

Recap

- NPDC starting stakeholder engagement, workshops planned for May, engagement will be with governance panel after shortlist MCA workshop
- Michael goes over frameworks showing spread of interventions
    - Michael: Any thoughts on balance of interventions?
    - Stuart: Good to see different lens of looking at interventions
    - Once we get into detail we will see what interventions are a part of which programmes
    - Pam: Just a thought, is there a way of breaking down interventions around each region based on frameworks?
    - Michael: Have not done that yet but have data available to do so
    - Pam: Yes would be great value and give strong evidence base to the way people move around each unique area
    - Should BB and Waitara be split out?
    - Michael: Yes we can do that and will bring value
    - Stuart: will there be interventions that will be common across programmes?
    - Michael: Yes there are, this is important and will come back to it towards the end

Confirm Do-Min
Michael: work through online? No, spreadsheet will be sent out for comments
Megan: Might be a better approach to have someone like John to go through
Megan: Some interventions in the long term plan may have been paused
Action: NPDC to add notes to spreadsheet on projects that are likely to go forward

Question about Do-min from Vinuka: How does this relate to the District Plan?
Megan: Some interventions from District Plan will be included
John: Changing zoning and densifying included?
Action: PBC team to complete another review to capture all interventions, land use changes should be covered
Fiona: Language around region might cause confusion, be clear its related to NP district
Action: PBC team to review language for district / region / council consistency

Confirm Sifting criteria and discuss interventions to be removed

Michael explains sifting criteria (objective alignment, VKT reduction and fatal flaws) and shows some examples

Objectives alignment

Michael: A small number of interventions have a poor alignment (average score of 4/5 or more against the 5 objectives)
Megan: Receive feedback on the interventions over 4, time to do this now? Yes

Vinuka: MCA is not always capturing effectiveness, has that been considered now?
Michael: This is alignment against objective however, not discussing effectiveness
Vinuka: Does benefits get incorporated now or at a later stage?
Megan: First sift to have an initial feel of intervention alignment with objectives
Michael: Next step is to complete MCA to look at more detail to interventions at bottom of list

Colson Road new connection being discussed, could almost argue it will reduce VKT
Pam: If you have a new road, you have to make sure other benefits for other road users are required. There is a lot of background you need to take into account. Might need to be on a 1-10 scale.
Michael: Is the thought that we need to be more granular in scoring?
Pam: Yes, it is a bit too tightly grouped together as of now
Fiona: Agree with Pam, noting that Colson Rd is resilience and safety in the LTP
Michael: PBC Objectives are not the only objectives for transport network. If not included in the PBC I assume there are other avenues to complete other projects?
Kris: This is it, PBC is main mechanism to put it in to RLTP
Michael: Sounds like we need to consider this in more detail as consequences seem quite high if it is removed at this early stage
Action: Create a 1-10 granular scoring scale considering objective effectiveness and alignment.

Fiona: second crossing over Waiwhakaiho?
Stuart: We need more in depth analysis of telling the story
Fiona: Keep in mind GPS has shifted to Resilience and Climate adaptation
Megan: No harm in taking them forward
Michael: Yes we can look at the 17 interventions in more detail and flesh them out a bit more and keep them in for now
Action: Leave all interventions in at this stage to get stakeholder feedback
Action: Consider resilience in more detail in the intervention categories and strategic case

Fatal flaws

Michael: Lightrail and MRT with quite a bit of cost: Are we ruling this out now or should be keep it in as objective score is quite high?
Stuart: High frequency, high LoS for bigger cities however, an option with reduced LoS could be considered.
Michael: New intervention taking down the scale to that intervention
Pam: PT and rail PBC? Grouping rail and bus together? Might be other pockets of funding which can be funded from

- Objective score is good so would be good to keep in
- Fiona agrees, have to be more broad in the RLTP
- Pam: it might have a great benefit to community and might not be funding now but might be in the future

Action: Cost should not be considered a fatal flaw at this stage

Kris: Might not fit with the NP travel demand
Michael: MRT might be ruled out at this stage, however, make sure the PT levels below that are not missed

Michael: Do we have to rule anything out at this point? Perhaps interventions we don't have control over
Megan: Will be captured in the MCA, reword the interventions we don't have control over to ones we can control
Fiona: Think about widening footpath as a part of intervention
Megan: interventions to widen footpath can be included in that interventions
Michael: Making sure language is right and reflects intervention to something we can control

Action: Consider interventions we can control if identified as a fatal flaw

Climate change

- Michael: Some Interventions may increase VKT, is that a fatal flaw?
- Stuart: Bypasses article in the news, wouldn't see it as a fatal flaw but requires more detailed review. Mentions benefits and communities support them
- Add more details to interventions with locations etc.
- Blocks off city centre from vehicles which could reduce vkt
- Pam: ID 317 (bypass) is not granular therefore cannot rule out, provide granularity and examples
- WK is working on this intervention
- Megan: Sounds like we are all in agreement
- Michael: Will go through interventions to flesh out details

Confirm MCA Criteria

Michael: Anything other than the proposed criteria needed?

- Nadine: Discussion around equity could be catered for in the frameworks/hierarchy so does not need to be in criteria

Megan: Might be worth to talk about the red text showing what is not included in criteria
Michael: Don't have scope for safety and design as well as consentebility, don't have enough technical knowledge available to be confident. Mostly based around detail. Qualitative assessment. No strong thoughts? Provide feedback later on

Discuss Intervention themes/categories to form longlist

Michael introduces categories
Nadine: Is regional active modes new active modes facilities in the regions?
Michael: Yes

- Nadine: Changing the language from regional

Michael: Are these categories/themes what you were thinking Stuart concidering your feedback?

- Yes, just looked at other PBCs and want to ensure good coverage of programmes
- Might be good to further identify categories with descriptions
- Megan: Send the first cut for comments/feedback from the rest of the team
- Stuart: add a bit more detail to what categories are
- Michael: go to the next step from the district plan to achieve densification
    - Is it appropriate to include land use interventions?

Categories consistent across all programmes, should that be our reference case?

- Stuart: More like categories/interventions such as network optimisation/operation, speed management
- Megan: Brainstorming session within Beca PBC team to identify common categories across all programmes

Stuart: First time being apart of this process. High level, trying to get range of programmes
Michael: Hybrid options might develop and become more targeted in the future stages
Stuart: Programmes need to be distinctive. Some more corridor focused, high parking charges, PT?
Michael: Agree, distinctive programmes allows for MCA testing to see where the benefits are

Next Steps

Michael: Will flesh out the programmes for feedback
Any other questions/queries?
15th may pencilled in for next workshop but no invites yet. Could potentially push it towards the end of the week considering incoming feedback

Next catch up meeting is next week

3 Long list MCA review workshop

Date: 23/05/2023

Present: Michael Town, Michael Sewell, Megan Taylor, Mikaela Addy, Nicola Maclean, Cheryl Gazley, Nadine Ord, Pam Jenkinson, Vinuka Nanayakkara, Rui Leitao

Apologies: Sarah Mako

- Recap of work to date and team check in
    - Good feedback on SC received from partners regarding expanding evidence base
    - SC too fluffy and indirect - need to sharpen
    - Wanting more feedback from stakeholders and partners:
        - Do we pause and wait for feedback? **Make sure info is shared to all partners and require them to distribute within their teams as needed**
        - Are we asking the right questions? **Ask more pointed/prescriptive questions when sending out feedback**
        - Do we push ahead? **Keep to timeline, be more directive in ROIs, fluff and waffle to a minimum**
        - **Implement more frequent meetings with partners to enable more frequent feedback in a collaborative fashion**
    - What to do with detail in option spreadsheet - **asking for feedback now**
    - Including network resilience issue? Added these issues under problem statements 2 and 3, but might not fit well?
    - **Shawn** - **Remove mention of resilience from strategic diagram and PBC but still include reliability and accessibility components**
    - Safety evidence under problem statement 1
        - How are we using the term safety? Is it in terms of security, accessibility, etc?
        - **Focusing on infrastructure and accessibility at the moment, so safety of accessing PT is considered under other problem statements. Evidence around perceived safety issues with PT is limited.**
    - Investment strategic alignment diagram
        - Does it make sense to the group? Generally yes
- Introduce MCA process and outline options
    - Options are currently high level, don't want to be comparing very specific treatments at this stage
    - Intentionally differentiated LL options to see difference of outcomes in LL MCA
    - Are the LL options providing good coverage of problem statements?
        - LCLR option might not be a good fit, interventions are scattered across categories and option is not focused on specific outcomes. **Remove LCLR option**
        - Taking out one option won't be an issue as interventions categories are well covered across all options
        - **Freight option should be considered, with greater focus on reliability rather than resilience.**
    - Concerns about programme definitions - programmes will be mostly balanced with a focus on particular areas (e.g., Improvements for freight are considered across most options)
    - **Multi-modal focus - ensure this is catered for in all options and included in option descriptions (e.g., liveability option)**
    - Have we missed anything in the do minimum option (PT specific)? **Incremental improvements to bus stops is part of NPDC's current do minimum approach**

        - High-level guidance used to inform initial scoring, wanting feedback from stakeholders on draft scores then adjust scores based on feedback
        - VKT benefits will be measured through transport model at shortlist stage
        - Should land use options be considered? Yes, noting that transport connections are intended to be provided to the new growth areas in the district plan
- Agree MCA criteria for longlist
    - Technical achievability considers 'is this something we understand well - implementing, risks etc.'
    - Take environmental effects criteria out of LL assessment - limited information to assess this
    - Leave climate change mitigation in - aware of potential double counting
    - Scheduling criteria to be considered at shortlist MCA stage
- Discussing MCA scoring
    - Need to improve clarity of intervention categories and how they relate to each programme option
    - Will reach out to subject matter experts where required
- Sensitivity testing
    - Look to reflect benefit weightings from ILM in MCA IO weightings
- Next steps
    - PBC team to issue updated LL MCA info pack with clear questions and timelines

4 Short list review workshop

Date: 21/06/2023

Present: Mikaela Addy, Stuart Knarston, Cheryl Gazley, Rui Leitao, Michael Town, Michael Sewell, Megan Taylor, Vinuka Nanayakkara, Fiona Ritson, Kris Butterworth, John Eagles

- **Recap following long list workshop**
    - LCLR option removed from long list MCA
    - IOs weighted based on strategic case weightings
    - **Action** - Look to consider digital innovations in interventions and programme options
        - Potentially add in digital innovation criteria to LL MCA - need to follow up
        - Potentially have a section on digital innovation within the PBC
- **Long list scoring and sensitivity analysis**
    - Workshop group seem happy with baseline weightings of scoring and the sensitivity scenarios
    - Te Ao Māori scoring might sway rankings away from CBD accessibility - need to get these scores confirmed
    - Elected members may take issue with resilience and freight option not scoring highly - so it's important to communicate the reduced nature of the freight option and how it is covered by the top two options from the scoring
    - Safer outcomes option scored low - but safety is considered in all interventions anyway
    - Connected urban centres and liveability are also top two for the Kaitiaki group
- **Agreeing shortlist programme options**
    - Helpful to show specific treatments in New Plymouth, Waitara, Bell Block - will be displayed within GIS output
    - **Action** - Communicating key differences between top programmes will help
        - Insets for main centres
        - Dotted lines for key connections between centres
        - Be clear on the purpose of the active mode bridge
        - Use an example connected urban centre
        - More purposeful language for road pricing intervention and consider links with other demand management

        - Update language and consider scheduling component of SH44 detuning to communicate precursor supporting interventions
        - Clarify and show planned growth in the option
        - Update language and consider scheduling component of remove SH44 and ring road to communicate precursor supporting interventions (link to problems and think about intermediate steps)
        - Include short medium long term map that links to NLTP/hierarchy
        - Strategic network map and over S-M-L term? – Caution about going into detail too much
    - Change name of Maximise VKT reduction option to be more holistic. Reduce travel need? Reduce private vehicle need?
- **Key interventions within short list**
    - Connected urban centres has less investment in cycle networks as it focuses only on interested but concerned
    - Road pricing is not yet well defined - if included it will be a medium to long term intervention
    - Removing SH44 and add ring road would be bottom of the intervention hierarchy, will likely be a long-term intervention
    - Travel demand management is fundamental and might need to feature across all short list options?
    - Scheduling of interventions will help to communicate hierarchy of interventions
    - Categorise district wide interventions on intervention hierarchy in short list info pack
    - Maintain a macro-level view and analysis of interventions in the PBC - should be a resource for future
    - Illustrate rail and blue highway interventions in VKT programme option diagrams
    - Are freight emissions included in interventions from Max VKT reduction?
- **Project governance workshop planning**
    - Booked in for Thursday 29/6/23
    - Will help to shape what is presented to the elected members workshop
    - Elected members on governance team: Deputy mayor, regional transport rep
    - Focusing on strategic alignment with other work in the transport space e.g. BTCS Taranaki
- **Elected members workshop planning**
    - Booked in for Friday 5/7/23
    - Focus on taking them through the journey for the PBC thus far
    - 3 hours booked in
    - Community boards will be in attendance
    - Agenda of workshop needed by Friday 30/6/23

- **Next steps**
    - Mikaela to send through Te Ao Māori scoring
    - Beca to email out short list info by end of week
    - Discussion with Port soon

5 Short list option confirmation workshop

Date: 13/07/2023

Present: Michael Town, Vinuka Nanayakkara, Kris Butterworth, Pam Jenkinson, Stuart Knarston, Rui Leitao, Shawn Scott, Mikaela Addy, John Eagles

- **Recap of engagement - Councilor engagement**
    - Elected members workshop on 5th July
    - Presented pack of interventions
    - Showing each program then a summary of interventions

- They then put a tick or cross against those they did and didn't like
- Based on the crosses/ticks they then chose which ones had the most ticks.
- The top 3 were:
    1. Connected urban centers
    2. Freight
    3. Better PT

- **Recap of engagement - Governance Group**
    - All going well
    - Elected members now in the group
    - Have given input into scoring
    - Iwi consultation is going well
- **Recap of engagement - Public engagement**
    - Working on this at the moment
    - Same high level overview the same as presented to elected members
- **Present updated strategic alignment options**
    - TRC much more happy with the new Prob Statement 1
    - Pam asked for clarification on evidence gaps and is happy with response
    - Stuart explain modelling approach. Michael explained that it isn't project specific but is could be a bus, train, tram etc, that could have high frequency
    - Page 1 Map very helpful (loves "Plan on a page, great work") - Vinuka
    - In the modelling do you look at these in conjunction or is it one at a time (Rui)? Do min model shows what is already underway. Will model all interventions together that go together.
    - Common base - what do people think?
        1. Stuart = a half step. That makes sense
        2. Rui = spreads the love equally across all areas
        3. Shawn = helps identify the specific things that have a bigger influence
        4. Michael = without this you could end up with a scenario where you over invest
    - Vinuka - How will we be able to tell what's gold plated and what's do min? We want to know where the investment level should be (as a co-funder)?
    - Stuart - wouldn't the cost analysis this provide is guidance?
    - Vinuka - Is there an indication that once we are through this process that there's no difference between the options? Use "T-shirt sized" scale of interventions
    - Kris - how do we get a most benefit from the intervention? Is it optimization based on a total budget
    - Vinuka - cost thinking needs to be at the Programme level.
    - Michael - yes makes sense. A rough cost is required for the MCA and will feed into it.
        1. We did have some smaller cost packages
        2. Have now ended up with broad and big scale as a result of the preferred package
    - Stuart - Most things are at programme level but don't we need to get into detail on particular corridors and if needed can the model do this? Was thinking this would happen once there is a preferred option as it effects the timing (s/m/long term)
    - Rui - Still need freight and kiwirail engagement as they clearly impact the road
    - Michael - What is short, medium and long term? Does it need to be defined?

      Rui - **short 0-5 (1 LTP period +), med 5-15 and long 15-30**. But don't need to be stated as it might raise expectations. For internal use only. Long term "in the act" is 30 years. Note that affordability might move things between time periods as we might run out of money in a time period. For modeling use 10 years for short term and then everything else is long term

      Shawn - Short 6 (2 LTP), med up to 15. Anything coming from a another Bus Case will be at least medium term. You have lots of things in the Short term - Michaels response = these a low cost but can be shifted out to a later date

      Cheryl - align to the WK procurement cycle

      Vanuka - aligning to the LTP holds you to account. Long term is 5years in other RCAs

Michael - what model should we put things into
Stuart - is it feasible and what's the risk. Common interventions will also need to spread across the time periods

- Outcome.....for internal use only, go with Rui's recommendations
- **Present updated short list options**
  - Shawn = really like the common option list, great work taking on our feedback
  - Vinuka = fits in all options....investment management (transport planning) with movement and place or Network operating plan. Making sure this is a funded line item. Conversation between NPDC and WK to cover good management of these planning levers. Therefore it needs to be in the PBC so it is prioritized
  - Rui = How do we make this fit into the District Plan? Should be in the transport planning item
  - Michael = transport planning items need to be line items in the common short list interventions list. Make sure these are District wide
  - Stuart = can you show phasing for the short list diagrams. That would be great (Rui)
  - John = Do you keep going if there isn't success with the programme? Need to measure both the interventions and the PBC
  - Vinuka = also in the transport planning item add PBC monitoring. Put this in the management case. PBC sets the high level parameters and out of the PBC there are monitoring plans for each programme. Like a triangle
  - Shawn = comes back to the investment realisation
  - John = Did the Councilors rule out anything in the diagrams
  - Mikaela = very car centric. Specific route for freight liked. Increased parking fees not liked. One state highway in NP was a no. But overall there was no strong desire for change. Need to identify where it is a need and not a want.
  - Vinuka = we can't go straight to the ring road option....do you think there's a clear story of why? It comes back to the cost summary. If you build the ring road does it achieve the investment objectives in the Strategic Case?
  - Michael = At the Long list stage the fatal flaws were considered. At the end of the month the Do min will be completed
- **Short list MCA Plan (criteria and sensitivity testing)**
  - Using model as much as we can as it's a good evidence base
  - Stuart = using the model could be iterative based as you sometimes get odd results out of the model
- **Short list MCA Plan (modeling inputs/scenarios)**
  - Do we get graphical outputs from the model? Beca to talk to the modeling team

  Michael = not everything is to be represented geospatially but will try where possible
  Michael = to be in touch with NPDC team to agree scoring before the end of July
- Economics methodology now confirmed with Shawn
- Inglewood ONF - now should be included in the PBC. Now want simple modeling for the community so show they have been considered
- Mikaela on leave for the next 3 months. Denise Houston will take it over in her absence

6 Short list MCA workshop

Date: 27/07/2023

Present: Denise Houston, Mikaela Addy, Jacob Stenner, Nadine Ord, Nichola Maclean, Stuart Knarston, Pam Jenkinson, Cheryl Gazley, Rui Leitao, Michael Sewell, Megan Taylor, Vinuka Nanayakkara, Kris Butterworth

- **Project updates**
  - Interest in investigation into passenger rail from Kiwirail
  - Consent for public consultation from SOC for 16th of August consult
  - Michael T and Mikaela taking extended leave soon

- **Modelling scope and process**
    - Simplified network for Oakura etc. in the model update?
    - Rail is not appropriate to include in the strategic model if it is freight-only
    - Transport emissions can be scaled down with removal of heavy vehicle trips
    - Is NP to Waitara cycleway included in do min?
    - Rui expected Elliot street SH intersection would show up with a poor LOS - check
    - Simplified assumption of growth of trips to port - any issues with this?
    - Large response in PT mode share for option 2 and 3
    - PT mode share response for 'other' trips possibly too large - needs inspection
    - Will further inspect delay for buses in micro models at later stages
    - Estimating cycle growth is a known and ongoing challenge - we are confident in our model and its outputs
    - Check queuing at Elliot Street matches real life queues
- **MCA scoring based on KPIs**
    - Scoring using modelling outputs - creates a sense of an educated guess - more robust
    - Need to inspect the results for KPI 12b - why?
    - Pedestrian cordon counts - using most recent count as a baseline
    - Reach out to Nathaniel for potential length of visit info of pedestrians - KPI 11
    - Long term monitoring to understand impact of KPI 15
    - Make the point of TDM interventions being higher priority

E

Appendix E – Intervention Categorisation and Scheduling

1. Long List Intervention table

ID	Problem	Source	Interventions	To sift	Through sift	Comment	Balanced programme	Safer outcomes	PT enabled urban growth	Maximise VKT reduction	Connected urban centres	CBD accessibility	Liveability	Resilience and freight
1	Problem 1	Workshop	Create on-demand PT/shuttles for communities where regular PT routes are not proposed.	Yes	Yes	These would follow set routes between residential areas and the town centres and be hailed via a phone or app.	0	0	0	1	0	0	1	0
3	Problem 1	Workshop	Introduce parking fees and management interventions as part of a New Plymouth District parking strategy.	Yes	Yes	This would consider parking clearways during peak times and increasing prices for key areas during peak times.	0	0	0	1	1	1	0	0
4	Problem 1	Workshop	More frequent PT services across the week and increased services at night time on the existing routes.	Yes	Yes		1	0	1	1	1	1	1	1
5	Problem 1	Workshop	Facilitate high density residential developments along high frequency PT routes.	Yes	Yes		0	0	1	1	0	1	1	0
6	Problem 1	Workshop	Light rail to key communities outside New Plymouth (e.g., Bell Block, Waitara, and other outer suburbs).	Yes	Yes		1	1	1	1	1	0	0	0
7	Problem 1	Workshop	Transit Oriented Development	No	No	Duplicate of 5	0	0	0	0	0	0	0	0
8	Problem 1	Workshop	Increase frequency to every 15min	No	No	Duplicate of 4	0	0	0	0	0	0	0	0
9	Problem 1	Workshop	Make buses electric	No	No	Duplicate of 48	0	0	0	0	0	0	0	0
10	Problem 1	Workshop	Create a free inner city bus loop.	Yes	Yes		0	0	0	1	0	0	1	0
11	Problem 1	Workshop	Free public transport.	Yes	Yes		0	0	0	1	0	1	1	0
12	Problem 1	Workshop	Higher frequency services e.g. 4/hr/7-7 weekday	No	No	Duplicate of 4	0	0	0	0	0	0	0	0
13	Problem 1	Workshop	access, health, equity benefits e.g. low fares, complete & safe networks, low-cost travel options, etc.	No	No	Covered by other interventions	0	0	0	0	0	0	0	0
15	Problem 1	Workshop	More frequent buses between New Plymouth and rest of district (e.g., Ōakura, Ōkato, and Inglewood).	Yes	Yes		1	1	1	1	1	0	1	0
16	Problem 1	Workshop	shuttle/community bus service in hard to reach areas instead of scheduled PT	No	No	Duplicate of 1	0	0	0	0	0	0	0	0
17	Problem 1	Workshop	Bus shelters implemented at every bus stop with live information at specific bus stops.	Yes	Yes		1	1	1	1	1	0	0	0
18	Problem 1	Workshop	Lower bus prices.	Yes	Yes	Make prices lower so that they are competitive to fuel and parking prices	0	0	0	1	0	1	1	0
19	Problem 1	Workshop	Feasibility study completed on rail	No	No	Duplicate of 6	0	0	0	0	0	0	0	0
20	Problem 1	Workshop	Why is bus service only daylight hours - night-time and weekends. To do with the safety factor as people do not feel safe to walk at night	No	No	Duplicate of 4	0	0	0	0	0	0	0	0
21	Problem 1	Workshop	More bus hubs outside of New Plymouth (e.g.,Waitara, Bell Block, and Ōakura).	Yes	Yes	Increased amenities such as shelter, toilets, live information boards, bike parking etc.	1	1	1	1	1	0	0	0
22	Problem 1	Workshop	Train service from inland towns/ Waitara to central New Plymouth?	No	No	Duplicate of 6	0	0	0	0	0	0	0	0
23	Problem 1	Workshop	PT stops should connect to key businesses areas outside New Plymouth	No	No	Duplicate of 14	0	0	0	0	0	0	0	0
24	Problem 1	Workshop	Structure - loop services or through-routed?	No	No	Duplicate of 14	0	0	0	0	0	0	0	0
25	Problem 1	Workshop	Make buses electric	No	No	Duplicate of 9	0	0	0	0	0	0	0	0
26	Problem 1	Workshop	Express bus services for satellite communities (e.g., Bell Block, Waitara, Airport, Ōakura, Ōkato, and Inglewood) that align with commuting times.	Yes	Yes	Travel time end to end should be competitive with driving (getting to hub/stop, travelling, getting to destination etc.)	0	0	1	1	1	1	1	0
27	Problem 1	Workshop	PT very important for education	No	No	Not an intervention, covered in ID 306	0	0	0	0	0	0	0	0
28	Problem 1	Workshop	Priority bus and carpool lanes at congested points on network.	Yes	Yes		1	1	1	1	1	0	0	0
29	Problem 1	Workshop	Integrate New Plymouth City Centre bus hub location with connections to other modes and key destinations.	Yes	Yes	Precursor to this work may include a feasibility study	1	1	1	1	1	0	0	0
30	Problem 1	Workshop	Relocated bus hub to service City centre	No	No	Duplicate of 29	0	0	0	0	0	0	0	0
31	Problem 1	Workshop	Light rail on existing rail network with key stops	No	No	Duplicate of 6	0	0	0	0	0	0	0	0
32	Problem 1	Workshop	Bus lanes / T2 to incentivise efficient use of vehicles and the PT more attractive - focus on SH	No	No	Duplicate of 28	0	0	0	0	0	0	0	0
33	Problem 1	Workshop	Improve active modes access to PT	Yes	No	Covered in 21, 55, 91 and other general active mode interventions	0	0	0	0	0	0	0	0
34	Problem 1	Workshop	Regional issue, with poor connectivity across the Provence	No	No	Not an intervention, covered in ID 15	0	0	0	0	0	0	0	0
35	Problem 1	Workshop	PT very important for the satellite towns	No	No	Duplicate of 26	0	0	0	0	0	0	0	0
36	Problem 1	Workshop	PT can address depravation	No	No	Not an intervention, covered in ID 310	0	0	0	0	0	0	0	0
37	Problem 1	Workshop	Shelter and live updates at bus stop	No	No	Duplicate of 17	0	0	0	0	0	0	0	0
38	Problem 1	Workshop	Free buses in CBD with park and ride on the fringe	No	No	Duplicate of 10	0	0	0	0	0	0	0	0
39	Problem 1	Workshop	High density developments on PT routes - supports linear city with express/high frequency routes	No	No	Duplicate of 5	0	0	0	0	0	0	0	0
40	Problem 1	Workshop	PT priority lanes	No	No	Duplicate of 28	0	0	0	0	0	0	0	0
41	Problem 1	TRC RLTP 2020	NP Public Transport Hub	No	No	Duplicate of 29	0	0	0	0	0	0	0	0
42	Problem 1	TRC PTP 2020	New bus ticketing system including new ticketing machines to make PT easier to access	Yes	Yes		1	0	1	1	1	1	1	1
43	Problem 1	TRC PTP 2020	Develop a bus app with real-time passenger information	Yes	Yes		1	0	1	1	1	1	1	1
44	Problem 1	TRC PTP 2020	increase the frequency of Connector trips and provide for an accessible bus option	No	No	Duplicate of 4	0	0	0	0	0	0	0	0
45	Problem 1	TRC PTP 2020	Upgrade and better fund the Total Mobility management system for more inclusive PT access	Yes	Yes		1	0	1	1	1	1	1	1

ID	Problem	Source	Interventions	To sift	Through sift	Comment	Balanced programme	Safer outcomes	PT enabled urban growth	Maximise VKT reduction	Connected urban centres	CBD accessibility	Liveability	Resilience and freight
46	Problem 1	TRC PTP 2020	Assess funding for Ironside Vehicle Society Inc	No	No	Duplicate of 45	0	0	0	0	0	0	0	0
47	Problem 1	TRC PTP 2020	Implement increased services levels between Waitara, Bell Block and New Plymouth	No	No	Duplicate of 26	0	0	0	0	0	0	0	0
48	Problem 1	TRC PTP 2020	Investigate electric buses (and other alternative fuel sources for buses) and develop a transition plan as part of TRC contribution to Taranaki 2050	Yes	Yes		0	0	0	1	0	0	1	1
49	Problem 1	TRC PTP 2020	continue to assess Timaru's My Way by Metro on-demand public transport service trial	No	No	Duplicate of 1	0	0	0	0	0	0	0	0
50	Problem 1	TRC PTP 2020	continue to participate in the national ticketing system procurement project	No	No	Not an intervention, covered in ID 42	0	0	0	0	0	0	0	0
51	Problem 1	TRC PTP 2020	daily bus service with multiple return trips from Ōkato to New Plymouth	No	No	Duplicate of 26	0	0	0	0	0	0	0	0
52	Problem 1	TRC PTP 2020	expanded Citylink services to Taranaki Base Hospital catering to shift workers and patients	No	No	Duplicate of 14	0	0	0	0	0	0	0	0
53	Problem 1	TRC PTP 2020	cross-city services in New Plymouth focused around key service centres such as residentially sited shopping centres, supermarkets and medical centres	No	No	Duplicate of 14	0	0	0	0	0	0	0	0
54	Problem 1	TRC PTP 2020	services to Bell Block industrial area during normal business hours	No	No	Duplicate of 26	0	0	0	0	0	0	0	0
55	Problem 1	TRC PTP 2020	Develop a new bus route to New Plymouth Airport for staff and travellers, including bicycle capacity	Yes	Yes		0	0	1	1	1	1	1	0
56	Problem 1	TRC PTP 2020	additional Saturday services and routes similar to the week-day schedule	No	No	Duplicate of 4	0	0	0	0	0	0	0	0
57	Problem 1	TRC PTP 2020	extended Citylink operating hours, these are currently 7am to 6.20pm	No	No	Duplicate of 4	0	0	0	0	0	0	0	0
58	Problem 1	TRC PTP 2020	commuter services to Egmont Village and Inglewood	No	No	Duplicate of 26	0	0	0	0	0	0	0	0
59	Problem 1	TRC PTP 2020	investigate reestablishment of commuter services to Ōakura	No	No	Duplicate of 26	0	0	0	0	0	0	0	0
60	Problem 1	Placeholder		No	No		0	0	0	0	0	0	0	0
214	TBC	NOF	Devon St East / Hobson St Intersection - increase flows right turn into Hobson from east and left turn out of Hobson from north by providing additional lanes	No	No	Covered in 295	0	0	0	0	0	0	0	0
62	Problem 1	NOF	Relocation of bus stops from Ariki Street to Courtenay Street	No	No	Duplicate of 17	0	0	0	0	0	0	0	0
63	Problem 4	NOF	Restrict access to buses, pedestrians, and cyclists only on Ariki Street between Egmont Street and Brougham Street	Yes	Yes		1	1	1	0	1	1	1	1
64	Problem 2	Placeholder		No	No		0	0	0	0	0	0	0	0
65	Problem 2	Workshop	Maximise functional attractiveness of the Coastal Walkway to increase usage	Yes	Yes		0	0	0	0	1	1	1	0
66	Problem 2	Workshop	Park and ride options for cycling on the Coastal Walkway which includes bike parking and hire at key points	Yes	Yes		0	0	0	0	1	1	1	0
67	Problem 2	Workshop	Street lighting for key commuting active mode corridors to improve year round usage	Yes	Yes		0	1	0	1	1	1	1	0
68	Problem 2	Workshop	Airport transport options - biking/bus	No	No	Duplicate of 55	0	0	0	0	0	0	0	0
69	Problem 2	Workshop	Intersection upgrades to prioritise active modes where active mode users volumes are significant	Yes	No	Covered in 173	0	0	0	0	0	0	0	0
70	Problem 2	Workshop	Road pricing system	Yes	Yes		0	0	0	1	1	1	0	0
71	Problem 2	Workshop	15-minute city concept	No	No	Duplicate of 77	0	0	0	0	0	0	0	0
72	Problem 2	Workshop	Low traffic neighbourhood greenways for active modes	Yes	Yes	Roll out from centre fringe to outer suburbs over time	0	1	0	1	1	1	1	0
73	Problem 2	Workshop	More cost efficient options for people along the coast	No	No	Covered by other interventions	0	0	0	0	0	0	0	0
74	Problem 2	Workshop	Develop in a linear line to create efficient transport corridors rather than outward	No	No	Duplicate of 5	0	0	0	0	0	0	0	0
75	Problem 2	Workshop	Walking/cycling should be more affordable and safer than driving	No	No	Not an intervention, covered in ID 311	0	0	0	0	0	0	0	0
76	Problem 2	Workshop	Separated and off road active mode routes for all primary routes	Yes	No	Covered in 154-161	0	0	0	0	0	0	0	0
77	Problem 2	Workshop	15 minute city concept - villages with services, retail, and place making to avoid CBD travel for communities over 5km away	Yes	Yes		0	0	0	1	0	0	0	0
78	Problem 2	Workshop	Encourage businesses to offer workplace travel options and work from home schemes to employees	Yes	Yes		0	0	0	1	0	0	0	0
79	Problem 2	Workshop	Being able to model it based on personas and compare to different households	No	No	Not an intervention, out of scope (can be done by modelling team)	0	0	0	0	0	0	0	0
80	Problem 2	Workshop	Communities with town centres to support short sustainable transport trips	No	No	Duplicate of 77	0	0	0	0	0	0	0	0
81	Problem 2	Workshop	Increase pricing in city centre and fringe for drivers	Yes	No	Covered in 3 and 70	0	0	0	0	0	0	0	0
82	Problem 2	Workshop	how to test more residential growth in City Centre East?	No	No	Not an intervention, covered in ID 312	0	0	0	0	0	0	0	0
83	Problem 2	Workshop	Self-sufficient town rather than a satellite town	No	No	Duplicate of 77	0	0	0	0	0	0	0	0
84	Problem 2	Workshop	Limit growth to existing urban areas in New Plymouth, southern growth areas, and Bell Block	Yes	Yes	More density and mix used developments around local centres and in the City Centre (e.g., East of Liardet Street) that is more intensive than existing NPDC growth strategy	0	0	1	1	0	1	1	0
85	Problem 2	Workshop	High-density mix use housing closer to the city centre, supported by planning regulations	Yes	No	Covered by 84	0	0	0	0	0	0	0	0
86	Problem 2	Workshop	Social housing that located in areas with good transport choices	Yes	Yes	not just the outskirts to provide better transport access	0	0	1	1	0	1	1	0
87	Problem 2	Workshop	Residential Greenways	No	No	Duplicate of 72	0	0	0	0	0	0	0	0

ID	Problem	Source	Interventions	To sift	Through sift	Comment	Balanced programme	Safer outcomes	PT enabled urban growth	Maximise VKT reduction	Connected urban centres	CBD accessibility	Liveability	Resilience and freight
88	Problem 2	Workshop	Subsidised shared bike scheme	Yes	Yes		0	0	0	0	1	0	1	1	0
89	Problem 2	Workshop	Encourage high-density builds in the city centre	No	No	Duplicate of 85	0	0	0	0	0	0	0	0
90	Problem 2	District Plan	Urban Development	No	No	Not an intervention, covered in ID 313	0	0	0	0	0	0	0	0
91	Problem 2	City Centre Strategy	Encouraging walking and cycling to the city as a package with public transport, car parking and micro-mobility to ensure success.	Yes	No	Covered by more specific interventions elsewhere	0	0	0	0	0	0	0	0
92	Problem 2	Placeholder		No	No		0	0	0	0	0	0	0	0
93	Problem 3	Workshop	Sharing existing footpaths with cyclists and change by-laws	Yes	No		0	0	0	0	0	0	0	0
94	Problem 3	Workshop	Change by-laws to allow bikes on footpaths	No	No	Duplicate of 93	0	0	0	0	0	0	0	0
95	Problem 3	Workshop	Mode priority and ONF investigation with walking as top priority	Yes	Yes		1	1	1	0	1	1	1	1
96	Problem 3	Workshop	Freight movements utilising the rail network	Yes	Yes		0	0	0	1	0	0	1	1
97	Problem 3	Workshop	Prioritise walking and cycling at signalised intersections	Yes	No	Covered in 173	0	0	0	0	0	0	0	0
98	Problem 3	Workshop	Prioritise walking and cycling facilities over car parks	Yes	No	Covered by other more specific interventions	0	0	0	0	0	0	0	0
99	Problem 3	Workshop	Subsidising bicycles, wet weather gear, and other bicycle equipment	Yes	Yes		0	0	0	1	0	1	1	0
100	Problem 3	Workshop	Second route into New Plymouth from the east to reduce severance (e.g., Smart Road / Burgess Park)	Yes	Yes	This would create better distribution options for commuters and freight and more resilience	1	1	0	0	1	0	0	1
101	Problem 3	Workshop	Focus movements on one SH route through the centre of New Plymouth (e.g. SH45) and detune the other roads (e.g. SH44) for a more people focus	Yes	Yes	should be detuned to create a better link between the CBD and the coast	1	1	1	0	1	1	1	1
102	Problem 3	Workshop	SH44 CBD frontage detuning	Yes	No	Covered by 101	0	0	0	0	0	0	0	0
103	Problem 3	Workshop	Road safety improvements on SH3 at high risk locations	Yes	No	Covered in 227	0	0	0	0	0	0	0	0
104	Problem 3	Workshop	2nd river crossing via Smart Rd (location TBC?)	No	No	Duplicate of 100	0	0	0	0	0	0	0	0
105	Problem 3	Workshop	Implement turning restrictions at intersections between Airport Drive to Northgate	Yes	Yes		1	1	0	0	1	0	0	1
106	Problem 3	Workshop	Colson Road to Henwood Road as parallel route to SH3	Yes	Yes	(Indicative Rd in District Plan)	1	0	0	0	0	0	0	1
107	Problem 3	Workshop	Convert one-way SH system in New Plymouth to a single two-way SH to reduce severance	Yes	Yes	(with interchanges upgrade as required)	1	1	1	0	1	1	1	1
108	Problem 3	Workshop	Ring route bypass SH3 to Port via Burgess	No	No	Duplicate of 100	0	0	0	0	0	0	0	0
109	Problem 3	Workshop	Divert freight from the port away from the New Plymouth city centre through a ring road using local arterials as spokes for distribution	Yes	Yes		1	1	1	0	1	1	1	1
110	Problem 3	Workshop	Having a T3 lane on the one ways and to key surrounding areas	No	No	Duplicate of 28	0	0	0	0	0	0	0	0
111	Problem 3	Workshop	Detune SH44 to boulevard / reroute freight to One-way system	No	No	Duplicate of 102	0	0	0	0	0	0	0	0
112	Problem 3	Workshop	Prioritize 1 route through NP for freight	No	No	Duplicate of 101	0	0	0	0	0	0	0	0
113	Problem 3	Workshop	Detune NP to Freight	No	No	Duplicate of 101	0	0	0	0	0	0	0	0
114	Problem 3	Workshop	Inland rail freight hub to intercept road freight	Yes	Yes		0	0	0	1	0	0	1	1
115	Problem 3	Workshop	Freight movements utilising the shipping network	Yes	Yes		0	0	0	1	0	0	1	1
116	Problem 3	Workshop	Assume more local processing to higher value product rather than commodity driven freight?	No	No	Not an intervention, covered in ID 314	0	0	0	0	0	0	0	0
117	Problem 3	Workshop	Port is a fixed site - consideration needs to get freight to it without going through the CBD. Consider OD route.	No	No	Covered by other interventions	0	0	0	0	0	0	0	0
118	Problem 3	NOF	Alter lane layout of Elliot St to provide additional through lanes between Lemon Street and Devon Street	No	No	Duplicate of 127	0	0	0	0	0	0	0	0
119	Problem 3	NOF	Courtenay St signalise Carrington St Int to discourage rat running Pendarves / Lemon St.	No	No	Duplicate of 127	0	0	0	0	0	0	0	0
120	Problem 3	LTP	Gover Street - Liardet Street central block traffic calming (Pūkākā and Pukekura green links)	No	No	Duplicate of 151	0	0	0	0	0	0	0	0
121	Problem 3	LTP	Waitara festive lighting	No	No	Not an intervention, covered in ID 315	0	0	0	0	0	0	0	0
122	Problem 3	LTP	Strandon Village place focussed treatments	Yes	Yes		1	1	1	0	1	1	1	1
123	Problem 3	LTP	Inglewood CBD upgrade to reduce severance	Yes	Yes		1	1	1	0	1	1	1	1
124	Problem 3	Speed Management	Reduce speed around schools on local roads and rural roads	No	No	Covered in 222	0	0	0	0	0	0	0	0
125	Problem 3	Speed Management	Speed reductions at Taranaki Base Hospital.	No	No	Covered in 222	0	0	0	0	0	0	0	0
126	Problem 3	City Centre Strategy	Transforming the city centre area East of Liardet Street into a residential-led mixed use neighbourhood	Yes	No	Covered by 84	0	0	0	0	0	0	0	0
127	Problem 3	NOF	Configure intersections with traffic calming elements on arterial routes to discourage use of residential roads	Yes	Yes		1	1	1	0	1	1	1	1
128	Problem 4	Workshop	End to end and connected safe cycleway links	Yes	No	Covered in other more specific interventions	0	0	0	0	0	0	0	0
129	Problem 4	Workshop	Significant walking and cycling benefits from more pedestrian crossings, priority at intersections over vehicles, lower speeds	Yes	No	Covered in other more specific interventions	0	0	0	0	0	0	0	0
130	Problem 4	Workshop	Transport choices separated cycleways and shared paths, throughout the entire region	No	No		0	0	0	0	0	0	0	0
131	Problem 4	Workshop	Promote the use of sustainable transport	Yes	Yes	Promote this to the community, create roles in council to create and support travel plans etc.	0	1	0	1	1	1	1	0
132	Problem 4	Workshop	Bicycle skills, safety, and maintenance education programmes	Yes	Yes		0	1	0	1	1	1	1	0

ID	Problem	Source	Interventions	To sift	Through sift	Comment	Balanced programme	Safer outcomes	PT enabled urban growth	Maximise VKT reduction	Connected urban centres	CBD accessibility	Liveability	Resilience and freight
133	Problem 4	Workshop	Remove parking lanes on arterials to reduce congestion where this occurs / rollout of cycling improvements etc	No	No	Covered in 128 and similar interventions	0	0	0	0	0	0	0	0
134	Problem 4	Workshop	Complete protected cycle lanes across primary cycle network	Yes	No	Covered in 154-161	0	0	0	0	0	0	0	0
135	Problem 4	Workshop	Low speed zones in residential areas	Yes	No	Covered by 222	0	0	0	0	0	0	0	0
136	Problem 4	Workshop	Transport choices separated cycleways and shared path	No	No	Duplicate of 130	0	0	0	0	0	0	0	0
137	Problem 4	Workshop	Impacts on general traffic (e.g. possible more congestion) from road space reallocation, potential loss of some parking spaces, but mitigated by mode shift, increased parking charges and travel choice.	No	No	Covered in 128, 130 and similar interventions	0	0	0	0	0	0	0	0
138	Problem 4	Workshop	More pedestrianised areas in key locations to increase accessibility	Yes	No	Covered in other more specific interventions	0	0	0	0	0	0	0	0
139	Problem 4	Workshop	Walkways and cycleways to be appropriate lighting levels	No	No	Duplicate of 67	0	0	0	0	0	0	0	0
140	Problem 3	Workshop	Utilise existing private and public carparks together to reduce on-street parking	Yes	Yes	to prevent people parking on Devon and in the city	1	1	1	0	1	1	1	1
141	Problem 4	Workshop	Reduced severance between walkways (e.g., Coastal walkway, Huatoki, and Te Henui)	Yes	Yes	Making it safer to travel between these to create a better connected network	0	0	0	0	1	1	1	0
142	Problem 4	Workshop	More active connections across high speed state highways in fringe areas	Yes	Yes		1	1	1	1	1	0	1	0
143	Problem 4	Workshop	Extend the coastal walkway to the southern coastal areas of the district (e.g. Ōakura and Ōpunakē)	Yes	Yes		1	1	1	1	1	0	1	0
144	Problem 4	Workshop	More mid-block crossings in centres and side streets in areas with a high place function, as per ONF interventions	Yes	No	Covered in 174	0	0	0	0	0	0	0	0
145	Problem 4	Workshop	Low speed school zones	Yes	Yes	Note overlap with 124 but the relevant for this problem as well	0	1	0	1	1	1	1	0
146	Problem 4	Workshop	Walking and cycling network plan document for NPDC with maps. Design of walkways and cycleways to be consistent and unique to New Plymouth. Gap analysis of cycling routes.	Yes	No	Already completed	0	0	0	0	0	0	0	0
147	Problem 4	Workshop	Use revenue from parking and driving in the city to subsidise bicycle purchase and facilities	Yes	No	Subsidy covered in 99, facilities covered elsewhere	0	0	0	0	0	0	0	0
148	Problem 4	Workshop	Design of walkways and cycleways to be consistent and unique to New Plymouth	No	No	Merged with 146	0	0	0	0	0	0	0	0
149	Problem 4	Workshop	Convert carparks to prioritise bicycles and EVs	Yes	No	Covered in other more specific interventions	0	0	0	0	0	0	0	0
150	Problem 4	Workshop	Encourage businesses to offer employees electric bikes and bus passes over company cars	Yes	Yes		0	0	0	1	0	1	1	0
151	Problem 4	Workshop	Green links at Pukekura and Pūkākā for improved active mode access in New Plymouth	Yes	Yes	https://www.npdc.govt.nz/planning-our-future/ngamotu-new-plymouth-city-centre-strategy/activating-our-green-links/pukaka-green-link/	0	1	0	1	1	1	1	0
152	Problem 4	Workshop	Gap analysis of what cycling routes work and what doesn't	No	No	Merged with 146	0	0	0	0	0	0	0	0
153	Problem 4	Workshop	High standard of cycling facility	No	No	Covered by other more detailed interventions	0	0	0	0	0	0	0	0
154	Problem 4	Cycling Strategy (2019)	New Plymouth - Enthused and Confident Routes	Yes	Yes		0	0	0	1	1	0	1	0
155	Problem 4	Cycling Strategy (2019)	New Plymouth - Interested but Concerned Routes	Yes	Yes		1	0	1	1	1	1	0	0
156	Problem 4	Cycling Strategy (2019)	Bell Block - Enthused and Confident Routes	Yes	Yes		0	0	0	1	1	0	1	0
157	Problem 4	Cycling Strategy (2019)	Bell Block - Interested but Concerned Routes	Yes	Yes		0	0	0	1	1	0	1	0
158	Problem 4	Cycling Strategy (2019)	Waitara - Enthused and Confident Routes	Yes	Yes		0	0	0	1	1	0	1	0
159	Problem 4	Cycling Strategy (2019)	Waitara - Interested but Concerned Routes	Yes	Yes		0	0	0	1	1	0	1	0
160	Problem 4	Cycling Strategy (2019)	Inglewood - Enthused and Confident Routes	Yes	Yes		0	0	0	1	1	0	1	0
161	Problem 4	Cycling Strategy (2019)	Inglewood - Interested but Concerned Routes	Yes	Yes		0	0	0	1	1	0	1	0
163	Problem 4	Transport Choices	Devon St West from Barrett Road - Dawson Street separated cycleway	No	No	Duplicate of 130	0	0	0	0	0	0	0	0
164	Problem 4	Transport Choices	Mangorei Road, Northgate - Merrilands shops on road cycleway and shared path	No	No	Duplicate of 130	0	0	0	0	0	0	0	0
165	Problem 4	Transport Choices	Mangorei Road, Branch Road - Merrilands School shared pathway	No	No	Duplicate of 130	0	0	0	0	0	0	0	0
166	Problem 4	Transport Choices	SH44, Ngamotu Road - Liardet Street separated cycleway	No	No	Duplicate of 130	0	0	0	0	0	0	0	0
167	Problem 4	Transport Choices	Devon Street East & Clemow Road Record - Eliot. Separated cycleway and neighbourhood greenway	No	No	Duplicate of 130	0	0	0	0	0	0	0	0
168	Problem 4	Transport Choices	Coronation Avenue - Liardet Street, Separated cycleway and neighbourhood greenway	No	No	Duplicate of 130	0	0	0	0	0	0	0	0
169	Problem 4	City Centre Strategy	Pūkākā and Pukekura green links	No	No	Duplicate of 151	0	0	0	0	0	0	0	0
170	Problem 4	City Centre Strategy	Convert Molesworth Street to boulevard with high pedestrian amenity and safety	Yes	Yes		1	1	1	0	1	1	1	1
171	Problem 4	NOF	Signalised crossing points at schools in New Plymouth	Yes	Yes		1	1	0	0	1	1	1	0
172	Problem 4	NOF	Install cycle lanes in New Plymouth	No	No	Duplicate of 134	0	0	0	0	0	0	0	0

ID	Problem	Source	Interventions	To sift	Through sift	Comment	Balanced programme	Safer outcomes	PT enabled urban growth	Maximise VKT reduction	Connected urban centres	CBD accessibility	Liveability	Resilience and freight
173	Problem 4	NOF	Intersection improvements for pedestrians and cyclists in New Plymouth	Yes	Yes		1	1	0	0	1	1	1	0
174	Problem 4	NOF	Midblock improvements for pedestrians and cyclists in New Plymouth	Yes	Yes		1	1	0	0	1	1	1	0
175	Problem 4	NOF	Side road traffic calming improvements in New Plymouth	Yes	No	Covered in 127	0	0	0	0	0	0	0	0
176	Problem 4	NOF	protected two-way shared path on western shoulder and cycle lanes between Maranui Street and Rogan Street	No	No	Merged with 174	0	0	0	0	0	0	0	0
177	Problem 4	NOF	kerb build outs at all side roads to facilitate longitudinal pedestrian and cycle movements	No	No	Merged with 175	0	0	0	0	0	0	0	0
178	Problem 4	NOF	signalise crossing at New Plymouth Boys High School	No	No	Merged with 171	0	0	0	0	0	0	0	0
179	Problem 4	NOF	Pedestrian focused improvements at the Devon St West / South Rd (Blagdon) intersection and Local Area Traffic Management (LATM) to slow down eastbound traffic and left turn on to south Road from SH45.	No	No	Merged with 173	0	0	0	0	0	0	0	0
180	Problem 4	NOF	Signalise crossing at Spot swood College and reconfigure school entrance	No	No	Merged with 171	0	0	0	0	0	0	0	0
181	Problem 4	NOF	Improved Pedestrian and Cycle facilities on Morley Street between Vivian Street and Devon Street West.	No	No	Merged with 174	0	0	0	0	0	0	0	0
182	Problem 4	NOF	Signalising Gover Street/ Leach Street intersection	No	No	Merged with 173	0	0	0	0	0	0	0	0
183	Problem 4	NOF	Removing parking and improving cycle facilities to minimum best practice i.e. 1.5m wide with no parked cars or 2m adjacent to parked cars along Leach St / Vivian St / Powderham St & Courtenay St (one-way pair) remove	No	No	Merged with 172	0	0	0	0	0	0	0	0
184	Problem 4	NOF	Install cycle lanes on St Aubyn Street between Liardet St and Egmont St	No	No	Merged with 172	0	0	0	0	0	0	0	0
185	Problem 4	NOF	St Aubyn St install crossing points on side roads between Dawson St and Bayly Rd to facilitate longitudinal movements	No	No	Merged with 175	0	0	0	0	0	0	0	0
186	Problem 4	NOF	Providing a mid-block crossing facility on Devon Street between Barring Terrace and Watson Street., to connect with Te Henui walkway	No	No	Merged with 174	0	0	0	0	0	0	0	0
187	Problem 4	NOF	Extend the cycle lane along Clemow Rd and connect it to Valley Shopping centre through the existing pipe bridge	No	No	Merged with 172	0	0	0	0	0	0	0	0
188	Problem 4	NOF	Install traffic calming on Lemon Street to reduce rat running and assist preferred cycle route	No	No	Merged with 175	0	0	0	0	0	0	0	0
189	Problem 4	NOF	Reprioritise Devon Street East - Mangorei Road intersection to encourage through traffic to use SH3 Northgate (via Mangorei Road) to travel through Fitzroy	Yes	Yes		1	1	1	0	1	1	1	1
190	Problem 4	NOF	Installation of a pedestrian crossing on Courtenay Street between New World and The Warehouse	No	No	Merged with 174	0	0	0	0	0	0	0	0
191	Problem 4	NOF	Provide a two-way cycle lane on Clemow Road between Devon Street East and Record St	No	No	Merged with 172	0	0	0	0	0	0	0	0
192	Problem 4	RLTP	Complete district wide cycleway network	Yes	No	Covered by 154-161	0	0	0	0	0	0	0	0
193	Problem 4	RLTP	Taranaki Crossing 'Maunga to Surf' recreational route	Yes	Yes		1	1	1	1	1	0	1	0
194	Problem 4	RLTP	Footpath improvements to align with ONF outcomes in high place function areas	Yes	Yes	Encompasses both quality and coverage: Level, wide enough, on both sides	1	1	1	1	1	0	1	0
195	Problem 4	RLTP	Corbett Park footpath extension from Oākura	Yes	Yes		0	1	0	1	1	1	1	0
196	Problem 4	LTP	Coastal Walkway extension to Waitara	No	No		0	0	0	0	0	0	0	0
197	TBC	LTP	Te Rewa Rewa bridge repaint	No	No	Covered in 298	0	0	0	0	0	0	0	0
198	Problem 4	LTP	Waiwhakaiho Pedestrian and Cycle bridge from Fitzroy to The Valley	Yes	Yes		1	0	1	1	1	1	0	0
199	Problem 4	LTP	SH3 Inglewood pedestrian crossing signals	No	No		0	0	0	0	0	0	0	0
200	Problem 4	LTP	Mill Road (Harris - Huatoki Reserve) walking improvements	No	No		0	0	0	0	0	0	0	0
201	Problem 4	LTP	Inglewood Windsor Walkway safety improvements	Yes	Yes		1	1	0	0	1	1	1	0
202	Problem 4	LTP	Dixon Street to Corbett Park Walkway	No	No	Covered in 195	0	0	0	0	0	0	0	0
203	Problem 4	LTP	Wairau Road footpath	No	No	Covered in 195	0	0	0	0	0	0	0	0
204	Problem 4	LTP	Waiwhakaiho cycleway (Mangorei Road to Lake Mangamahoe)	No	No	Covered in 192	0	0	0	0	0	0	0	0
205	Problem 4	LTP	Huatoki Street shared pathway (Vogeltown School - Brois Street)	No	No	Covered in 300	0	0	0	0	0	0	0	0
206	Problem 4	LTP	Upjohn Street shared pathway (Evelyn Street - Brooklands Road)	No	No	Covered in 300	0	0	0	0	0	0	0	0
207	Problem 4	LTP	Clemow Road cycleway (Rotokare - Devon St East)	No	No	Covered in 154	0	0	0	0	0	0	0	0
208	Problem 4	LTP	Cumberland Street (Arawa Street - Heta Road) shared pathway	No	No	Covered in 300	0	0	0	0	0	0	0	0
209	Problem 4	LTP	Record Street shared pathway (Clemow Road to Coastal Walkway)	No	No	Covered in 300	0	0	0	0	0	0	0	0
210				No	No		0	0	0	0	0	0	0	0
211	TBC	NOF	Reprioritise Devon Street East/ Mangorei Road intersection to encourage through traffic to use SH3 Northgate (via Mangorei Road) rather than to travel through Fitzroy	No	No	Covered in 189	0	0	0	0	0	0	0	0
212	Problem 4	NOF	Convert Tukapa Street - Sanders Avenue roundabout to signalised intersection with pedestrian priorities	Yes	Yes		1	1	0	0	1	1	1	0
215	TBC	NOF	Changes to the existing signal phasing at Leach Street/ Liardet Street intersection	No	No	Covered in 295	0	0	0	0	0	0	0	0
216	TBC	NOF	Reconfigure Courtenay Street approach at the Courtenay Street/ Hobson Street intersection to improve the merge at the end of the one-way system.	No	No	Covered in 295	0	0	0	0	0	0	0	0

ID	Problem	Source	Interventions	To sift	Through sift	Comment	Balanced programme	Safer outcomes	PT enabled urban growth	Maximise VKT reduction	Connected urban centres	CBD accessibility	Liveability	Resilience and freight
218	TBC	NOF	Reconfigure lane geometry at Devon St West / Morley St to provide increased turn capacity	No	No	Covered in 295	0	0	0	0	0	0	0	0
219	TBC	NOF	Alter lane layout of Elliot St to provide additional through lanes between Lemon Street and Devon Street	No	No	Covered in 295	0	0	0	0	0	0	0	0
256	TBC	LTP	Henwood Road bridge (over SH3) traffic signalisation	No	No	Covered in 295	0	0	0	0	0	0	0	0
213	TBC	NOF	Installation of a right turn bay at the Mangorei Road/ Rimu Street intersection and provide a raised platform on Rimu St to facilitate more convenient pedestrian crossing.	No	No	Covered in 324	0	0	0	0	0	0	0	0
217	TBC	NOF	Signalise the Morley Street/ Vivian Street intersection	No	No	Covered in 324	0	0	0	0	0	0	0	0
220	Problem 2	RLTP	SH3 North corridor improvements from Waitara to Mohakatino	Yes	No	Covered in 227	0	0	0	0	0	0	0	0
221	Problem 3	RLTP	Increased accessibility for all Te Papakura o Taranaki (Egmont National Park) entrances	Yes	Yes		1	1	1	1	1	0	1	0
222	Problem 4	RLTP	Safer speeds following speed management principles (including engagement and implementation)	Yes	Yes		1	1	0	0	1	1	1	0
223	Problem 3	RLTP	Port Taranaki improvements - vehicle safety and accessibility	Yes	Yes		1	1	0	0	1	0	0	1
224	Problem 2	RLTP	Electric and hydrogen vehicle charging infrastructure	Yes	Yes		0	0	0	1	0	0	1	1
225	Problem 2	RLTP	Long-term retention of rail line between Hāwera and New Plymouth for freight	Yes	Yes		0	0	0	1	0	0	1	1
226	Problem 2	RLTP	SH3 Hāwera to Whanganui	No	No	Outside of NPDC district	0	0	0	0	0	0	0	0
227	Problem 2	RLTP	SH3, 3A, and 45 improvements addressing safety, reliability, and resilience issues	Yes	Yes		1	1	0	0	1	0	0	1
228	Problem 3	RLTP	Widening / replacement / realignment of all constraining bridges on state highways	No	No	Covered in 298	0	0	0	0	0	0	0	0
229	TBC	RLTP	SH43 improvements	No	No	Outside of NPDC district	0	0	0	0	0	0	0	0
230	TBC	RLTP	Junction Road seal extension	No	No	Not in NPDC area	0	0	0	0	0	0	0	0
231	Problem 4	RLTP	Emerging tourism routes including trails and on-road cycling	Yes	Yes		1	1	1	1	1	0	1	0
232	Problem 3	RLTP	SH3 Burgess Hill	No	No	Duplicate of 100	0	0	0	0	0	0	0	0
233	Problem 3	LTP	David Street - Tukapa Street signalisation	Yes	Yes		1	1	0	0	1	1	1	0
234	TBC	LTP	Mangorei Road (Tupuhi Place to Mangorei School) kerb and channel	No	No	Covered in 296	0	0	0	0	0	0	0	0
235	TBC	LTP	Lorna Street - Devon St West signalisation	No	No	Covered in 324	0	0	0	0	0	0	0	0
236	TBC	LTP	Parklands Avenue - Mangati Road intersection roundabout	No	No	Covered in 324	0	0	0	0	0	0	0	0
237	TBC	LTP	Hobson Street - Devon St East intersection improvements	No	No	Covered in 324	0	0	0	0	0	0	0	0
238	TBC	LTP	Brois Street - Govett Avenue intersection improvements	No	No	Covered in 324	0	0	0	0	0	0	0	0
239	TBC	LTP	Bayly Street kerbing and drainage improvements (Waitara)	No	No	Covered in 296	0	0	0	0	0	0	0	0
240	TBC	LTP	Raleigh Street - Tate Road intersection	No	No	Covered in 324	0	0	0	0	0	0	0	0
241	TBC	LTP	Airport Drive - Parklands Avenue intersection	No	No	Covered in 324	0	0	0	0	0	0	0	0
242	Problem 3	LTP	Brooklands Road - Hori Street - Upjohn Street intersection safety improvements	No	No	Covered in 324	0	0	0	0	0	0	0	0
243	TBC	LTP	Tukapa Street - Saunders Avenue intersection traffic signalisation	No	No	Covered in 324	0	0	0	0	0	0	0	0
244	TBC	LTP	Otararoa Road geometric improvement	No	No	Covered in 296	0	0	0	0	0	0	0	0
245	Problem 3	LTP	Pohutukawa Place walking and drainage improvements	Yes	Yes		1	1	1	1	1	0	1	0
246	TBC	LTP	Belair Avenue - Ōmata Road intersection roundabout	No	No	Covered in 324	0	0	0	0	0	0	0	0
247	TBC	LTP	Colson Road extension (Smart Road - Egmont Road)	No	No	Duplicate of 106	0	0	0	0	0	0	0	0
248	TBC	LTP	Sisson Terrace widening	No	No	Covered in 296	0	0	0	0	0	0	0	0
249	TBC	LTP	Wills Road widening	No	No	Covered in 296	0	0	0	0	0	0	0	0
250	TBC	LTP	Welcome to Waitara signage	No	No	Covered in 296	0	0	0	0	0	0	0	0
251	TBC	LTP	Junction Street bridge upgrade	No	No	Covered in 298	0	0	0	0	0	0	0	0
252	TBC	LTP	Waitaha Stream underpass	No	No	Covered in 296	0	0	0	0	0	0	0	0
255	TBC	LTP	Devon St East - Currie Street intersection improvements	No	No	Covered in 324	0	0	0	0	0	0	0	0
261	TBC	LTP	Morley Street - Vivian Street intersection traffic signalisation	No	No	Covered in 324	0	0	0	0	0	0	0	0
257	Problem 3	LTP	North Egmont carpark	No	No	Covered in 297	0	0	0	0	0	0	0	0
258	Problem 3	LTP	Elliot Street precinct development	Yes	Yes		1	1	1	0	1	1	1	1
259	TBC	LTP	Cumberland Street - Coronation Avenue intersection traffic signal	No	No	Covered in 296	0	0	0	0	0	0	0	0
260	TBC	LTP	Bishop Road extension (Egmont Road - Henwood Road)	No	No	Covered in 296	0	0	0	0	0	0	0	0
262	TBC	LTP	Coronation Avenue - Rogan Street intersection traffic signals	No	No	Covered in 324	0	0	0	0	0	0	0	0
264	TBC	LTP	Breakwater Road - Ngamotu Road - Centennial Avenue intersection improvements	No	No	Covered in 324	0	0	0	0	0	0	0	0
263	TBC	LTP	Huatoki Street bridge upgrade	No	No	Covered in 298	0	0	0	0	0	0	0	0
323	TBC	Annual Plan 22/23	Hobson Street/ Devon St East intersection improvement	No	No	Covered in 324	0	0	0	0	0	0	0	0
265	Problem 1	TRC Future of Transport in Taranaki	Weekend bus from Bell Block to the city	No	No	Covered by 4	0	0	0	0	0	0	0	0
266	Problem 1	TRC Future of Transport in Taranaki	Bus from Ōkato to Ōakura/NP	No	No	Covered by 15	0	0	0	0	0	0	0	0
267	Problem 3	TRC Future of Transport in Taranaki	Speed reductions at Ōkato	No	No	Covered by 135	0	0	0	0	0	0	0	0
268	Problem 4	TRC Future of Transport in Taranaki	Cycle infrastructure within Ōkato	Yes	Yes		1	1	1	1	1	0	1	0

ID	Problem	Source	Interventions	To sift	Through sift	Comment	Balanced programme	Safer outcomes	PT enabled urban growth	Maximise VKT reduction	Connected urban centres	CBD accessibility	Liveability	Resilience and freight
269	Problem 4	TRC Future of Transport in Taranaki	Extend walkway to Ōkato	No	No	Covered by 143	0	0	0	0	0	0	0	0
270	Problem 1	TRC Future of Transport in Taranaki	Increase frequency of bus connecting Ōakura to New Plymouth	No	No	Covered by 15	0	0	0	0	0	0	0	0
271	Problem 3	TRC Future of Transport in Taranaki	Speed reductions at Ōakura SH45	No	No	Covered by 222	0	0	0	0	0	0	0	0
272	Problem 4	TRC Future of Transport in Taranaki	Cycle infrastructure to connect Ōakura to New Plymouth	No	No	Covered by 143	0	0	0	0	0	0	0	0
273	Problem 3	TRC Future of Transport in Taranaki	Safer speeds in Ōmata reinforced by infrastructure	No	No	Covered by 222	0	0	0	0	0	0	0	0
274	Problem 4	TRC Future of Transport in Taranaki	Upgrade surfaces of all walking and bike paths in New Plymouth	Yes	Yes		1	1	0	0	1	1	1	0
275	Problem 4	TRC Future of Transport in Taranaki	Connect Back Beach to coastal walkway	No	No	Covered by 143	0	0	0	0	0	0	0	0
276	Problem 4	TRC Future of Transport in Taranaki	Bike parking at Ngamotu beach	No	No	Covered by 280	0	0	0	0	0	0	0	0
277	Problem 4	TRC Future of Transport in Taranaki	Active Transport/Micro mobility Hubs along the walkway	No	No	Covered by 66	0	0	0	0	0	0	0	0
278	Problem 4	TRC Future of Transport in Taranaki	Connect Mangaotuku Pathway to coastal walkway	No	No	Covered by 65	0	0	0	0	0	0	0	0
279	Problem 4	TRC Future of Transport in Taranaki	Safer school crossings with shelters	Yes	Yes		0	1	0	1	1	1	1	0
280	Problem 4	TRC Future of Transport in Taranaki	More safe and secure bike parking in city centre that considers repurposing existing car parks	Yes	Yes		0	1	0	1	1	1	1	0
281	Problem 1	TRC Future of Transport in Taranaki	Park and ride in Inglewood connecting to bus to NP	No	No	Merge with 10	0	0	0	0	0	0	0	0
282	Problem 3	TRC Future of Transport in Taranaki	Speed reductions in Inglewood centre	No	No	Covered by 222	0	0	0	0	0	0	0	0
283	Problem 1	TRC Future of Transport in Taranaki	Bus service during weekends	No	No	Covered by 4	0	0	0	0	0	0	0	0
284	Problem 4	TRC Future of Transport in Taranaki	Kerb cuts at more appropriately places pedestrian access points	No	No	Covered in 175	0	0	0	0	0	0	0	0
285	Problem 1	TRC Future of Transport in Taranaki	Longer bus transfer windows to connect different routes	Yes	Yes		1	0	1	1	1	1	1	1
286	Problem 4	TRC Future of Transport in Taranaki	Improved and increased seating in town centres	Yes	Yes		0	1	0	1	1	1	1	0
287	Problem 3	TRC Future of Transport in Taranaki	More shared zones with low speed limit in centre	No	No	Covered by 135	0	0	0	0	0	0	0	0
288	Problem 1	TRC Future of Transport in Taranaki	Weekend bus services from Bell Block to NP city	No	No	Covered by 4	0	0	0	0	0	0	0	0
289	Problem 1	TRC Future of Transport in Taranaki	Weekend bus services between Waitara and NP city	No	No	Covered by 4	0	0	0	0	0	0	0	0
290	Problem 4	TRC Future of Transport in Taranaki	Make walking and cycling more safe within Waitara	No	No	Covered by 158 and 159	0	0	0	0	0	0	0	0
291	Problem 1	TRC Future of Transport in Taranaki	More frequent PT in Waitara	No	No	Covered by 15	0	0	0	0	0	0	0	0
292	Problem 1	TRC Future of Transport in Taranaki	Bus service between Urenui and NP	No	No	Covered by 15	0	0	0	0	0	0	0	0
293	Problem 4	TRC Future of Transport in Taranaki	Better active mode facilities in Urenui	Yes	Yes		1	1	1	1	1	0	1	0
294	Problem 1	TRC Future of Transport in Taranaki	Bus service from NP to Pukearuhe	No	No	Covered by 15	0	0	0	0	0	0	0	0

ID	Problem	Source	Interventions	To sift	Through sift	Comment	Balanced programme	Safer outcomes	PT enabled urban growth	Maximise VKT reduction	Connected urban centres	CBD accessibility	Liveability	Resilience and freight
295	Problem 2	Grouped from above interventions	New Plymouth Intersection resilience and capacity upgrades	Yes	Yes		1	1	0	0	1	0	0	1
296	Problem 3	Grouped from above interventions	New Plymouth general road corridor safety improvements	Yes	Yes		1	0	0	0	0	0	0	1
297	Problem 3	Grouped from above interventions	Improved connection of off-road trails to road network	Yes	Yes		1	1	1	1	1	0	1	0
298	Problem 3	Grouped from above interventions	Bridge upgrades	Yes	Yes		1	1	0	0	1	1	1	0
299	Problem 3	Workshop	Resilience improvements for isolated communities to improve access to the wider transport network	Yes	Yes		1	1	0	0	1	0	0	1
300	Problem 3	Grouped from above interventions	Shared paths in New Plymouth along green corridors	Yes	Yes		0	1	0	1	1	1	1	0
301	Problem 4	NPDC team	More mobility parking, better positioned and designed to standard	Yes	Yes		1	1	1	0	1	1	1	1
302	Problem 4	NPDC team	Footpaths in Waitara to same standard as rest of district - priority linking to schools, shops, coastal walkway extension	Yes	Yes		1	1	1	1	1	0	1	0
303	Problem 4	NPDC team	Repurpose ground floor downtown carpark as bike parking hub	Yes	No	Covered in 280	0	0	0	0	0	0	0	0
304	Problem 3	PBC team	Inclusive access to community hubs and recreation facilities	Yes	Yes		1	1	1	1	1	0	1	0
305	Problem 1	PBC team	Upgrade key active mode links to PT stops	Yes	Yes		0	0	1	1	1	1	1	0
306	Problem 1	TRC team	Ensure PT is well-connected to educational facilities	Yes	Yes		0	0	1	1	1	1	1	0
307	Problem 3	PBC team	Inclusive access to community recreation hubs	Yes	No	Covered in 304	0	0	0	0	0	0	0	0
308	Problem 3	PBC team	Inclusive access to Marae	Yes	Yes		1	1	1	1	1	0	1	0
309	Problem 1	PBC team	Improved education and marketing of PT options	Yes	No	Covered in 131	0	0	0	0	0	0	0	0
310	Problem 1	TRC team	Ensure PT is available to communities with income lower than 20% bracket	Yes	Yes		0	0	0	1	0	1	1	0
311	Problem 4	TRC team	Infrastructure to upgrade high risk areas for pedestrians and cyclists	Yes	No	Covered by other interventions	0	0	0	0	0	0	0	0
312	Problem 2	TRC team	Feasibility study of residential growth in centre city east	Yes	No	Covered in 84	0	0	0	0	0	0	0	0
313	Problem 2	TRC team	Medium and high density developments with urban amenities nearby	Yes	Yes		0	0	1	1	0	1	1	0
314	Problem 3	TRC team	Restructure freight to favour local processing rather than commodity driven	Yes	Yes		0	0	0	1	0	0	1	1
315	Problem 3	TRC team	Improve lighting in urban centres around the district to create a softer and safer urban atmosphere	Yes	Yes		0	1	0	1	1	1	1	0
316	Problem 3	SWOT	Create more people focussed spaces in the district towns and centres	Yes	Yes		1	1	1	0	1	1	1	1
317	Problem 3	SWOT	Consider alternative routes for vehicles past towns	Yes	Yes		1	1	1	0	1	1	1	1
318	Problem 4	Review of DP	Upgrade active modes links to key amenities and existing bus stops for Development Areas identified in District Plan	Yes	Yes		1	0	1	1	1	1	0	0
319	Problem 2	Review of DP	Addition of local centre/mixed use in Development Areas identified in District Plan which are located more than 2km away from basic amenities	Yes	Yes		0	0	0	1	0	0	0	0
320	Problem 1	Review of DP	Extend bus routes to link to Development Areas identified in District Plan	Yes	Yes		0	0	1	1	1	1	1	0
321	Problem 3	Stuart upload to external folder: Register of projects for LTP	Raised pedestrian crossings around the district	Yes	Yes		1	1	0	0	1	1	1	0
322	Problem 4	Stuart upload to external folder: Register of projects for LTP	Increasing coverage of footpath network in Waitara	Yes	No	Covered in 302	0	0	0	0	0	0	0	0
61	TBC	NOF	Reconfigure lane geometry at Devon St West / Morley St to provide increased turn capacity	No	No	Duplicate of 295	0	0	0	0	0	0	0	0
324	Problem 3	Grouped from above interventions	New Plymouth general intersection safety improvements	Yes	Yes		1	1	0	0	0	0	1	1
325	Problem 1	Workshop	A bus network focussing on routes to major centres in the city e.g. a bus from the valley, hospital, library, multisport hub etc	Yes	Yes		0	0	1	1	1	1	1	0
326	Problem 1	NPDC team	Minor bus stop improvements	Yes	Yes		1	0	1	1	1	1	1	1
327	Problem 1	Workshop	Park and rides in fringe commuter suburbs (e.g., Bell Block, Waitara).	Yes	Yes		0	0	1	1	1	1	1	0

2. Short List Interventions Table

Interventions									Programme Options 69	100	102	97	109			
ID	Related Problem	Source	Intervention Description	Carried through to short list?	Comment	Intervention Category	Approximate Project Scope	2023-2053 PSO CAPEX	2023-2053 PSO OPEX	Common interventions	Liveability	Connected urban centres	Reduce transport emissions hybrid	Preferred	Intervention Hierarchy	Year Start	Year End
1	1	Workshop	Create on-demand PT/shuttles for communities where regular PT routes are not proposed	Yes	These would follow set routes between residential areas and the town centres and be hailed via a phone or app.	Improve public transport infrastructure and travel time to make PT more attractive and accessible	New on demand PT service in Inglewood, Ōakura and ōkato. Requires new shuttles, new IT infrastructure, advertising/consultation etc.	$0.00	$20,160,000.00	0	0	1	1	1	Demand Management	2033	
3	1	Workshop	Introduce parking fees and management interventions as part of a New Plymouth District parking strategy	Yes	This would consider parking clearways during peak times and increasing prices for key areas during peak times.	Travel demand and travel behaviour management	Based on approximate per capita measure derived from SFpark implementation of $50 per person	$4,400,000.00	$0.00	0	0	1	1	1	Best Use of Existing Network	2029	2030
4	1	Workshop	More frequent PT services across the week and increased services at night time on the existing routes	Yes		Improve PT frequencies and LOS to make PT a more attractive option	100% frequency increase in 2035 and 200% frequency increase in 2053	$0.00	$14,520,000.00	1	1	1	1	1	Demand Management	2032	
5	1	Workshop	Facilitate high density residential developments along high frequency PT routes	Yes		Increase population density in areas close to key urban centres and destinations	District Plan review	$333,333.33	$0.00	0	1	0	1	1	Integrated Planning	2030	2039
6	1	Workshop	High speed PT to key communities outside New Plymouth (e.g., Bell Block, Waitara, and other outer suburbs)	Yes		Improve public transport infrastructure and travel time to make PT more attractive and accessible	15km route upgrade for PT to connect Waitara, Bell Block and the CBD. 2 x new lanes and side road traffic calming	$341,172,000.00	$0.00	0	0	1	1	0	New Infrastructure	2045	2058
10	1	Workshop	Create a free inner city bus loop	No						0	0	0	0	0	Demand Management		
15	1	Workshop	More frequent buses between New Plymouth and rest of district (e.g.,	Yes		Improve lower cost multi-modal access, especially for communities outside of	Covered under ID4	$0.00	$0.00	1	1	1	1	1	New Infrastructure	2028	
17	1	Workshop	Bus shelters implemented at every bus stop with live information at specific bus stops	Yes		Improve public transport infrastructure and travel time to make PT more attractive and accessible	111 bus stop upgrades - shelters and real time information screens	$8,183,000.00	$1,718,430.00	0	0	1	1	1	Best Use of Existing Network	2028	2032
18	1	Workshop	Subsidised bus prices	Yes	Make prices lower so that they are competitive to fuel and parking prices	Improve lower cost multi-modal access, especially for communities outside of central New Plymouth				1	1	1	1	1	Demand Management		

Interventions										Programme Options 69		100		102		97		109				
ID	Related Problem	Source	Intervention Description	Carried through to short list?	Comment	Intervention Category	Approximate Project Scope	2023-2053 P50 CAPEX	2023-2053 P50 OPEX	Common interventions	Liveability	Connected urban centres	Reduce transport emissions hybrid	Preferred	Intervention Hierarchy	Year Start	Year End
21	1	Workshop	More bus hubs outside of New Plymouth (e.g.,Waitara, Bell Block, and Ōakura)	Yes	Increased amenities such as shelter, toilets, live information boards, bike parking etc.	Improve public transport infrastructure and travel time to make PT more attractive and accessible	New bus hubs (parking, shelters, toilets, real time info screens, bike racks etc.) at 4 locations (Waitara, Bell Block, ōakura, Inglewood)	$5,897,000.00	$0.00	0	0	1	1	1	New Infrastructure	2050	2053
26	1	Workshop	Express bus services for satellite communities (e.g., Bell Block, Waitara, Airport, Ōakura, Ōkato, and Inglewood) that align with commuting times	Yes	Travel time end to end should be competitive with driving (getting to hub/stop, travelling, getting to destination etc.)	Align PT routes with key destinations and make PT more accessible	Express bus service x2 in the morning and x2 in the evening for commuters along 3 new routes (Waitara-Airport-Bell Block-CBD, Inglewood-Egmont Village-CBD and ōkato-ōakura-CBD)	$0.00	$31,200,000.00	1	1	1	1	1	Demand Management	2028	
28	1	Workshop	Priority bus and carpool lanes at congested points on network	Yes		Improve public transport infrastructure and travel time to make PT more attractive and accessible	6km bus priority from Bell Block to New Plymouth CBD. Side road traffic calming and intersection upgrades (covered by ID6)	$2,001,214.29	$0.00	0	0	1	1	1	Best Use of Existing Network	2045	2058
29	1	Workshop	Integrate New Plymouth City Centre bus hub location with connections to other modes and key destinations	Yes	Precursor to this work may include a feasibility study	Improve public transport infrastructure and travel time to make PT more attractive and accessible	New main bus station in New Plymouth	$1,475,000.00	$295,000.00	0	0	1	1	1	New Infrastructure	2033	2033
42	1	TRC PTP 2020	New bus ticketing system including new ticketing machines to make PT easier to access	Yes		Improve PT frequencies and LOS to make PT a more attractive option				1	1	1	1	1	Best Use of Existing Network		
43	1	TRC PTP 2020	Develop a bus app with real-time passenger information	Yes		Improve PT frequencies and LOS to make PT a more attractive option				1	1	1	1	1	Integrated Planning		
45	1	TRC PTP 2020	Upgrade and better fund the Total Mobility management system for more inclusive PT access	Yes		Improve PT frequencies and LOS to make PT a more attractive option	Covered under ID1	$0.00	$0.00	1	1	1	1	1	Demand Management	2028	2028
48	1	TRC PTP 2020	Investigate electric buses (and other alternative fuel sources for buses) and develop a transition plan as part of TRC contribution to Taranaki 2050	Yes		Reduce the fossil fuel energy use of the transport network	New electric bus fleet for New Plymouth District	$0.00	$0.00	0	1	0	1	0	New Infrastructure		
55	1	TRC PTP 2020	Develop a new bus route to New Plymouth Airport for staff and travellers, including bicycle capacity	Yes		Align PT routes with key destinations and make PT more accessible	New bus route to New Plymouth airport from New Plymouth CBD	$0.00	$31,200,000.00	1	1	1	1	1	Best Use of Existing Network	2028	

Interventions										Programme Options 69							
ID	Related Problem	Source	Intervention Description	Carried through to short list?	Comment	Intervention Category	Approximate Project Scope	2023-2053 P50 CAPEX	2023-2053 P50 OPEX	Common interventions	Liveability	Connected urban centres	Reduce transport emissions hybrid	Preferred	Intervention Hierarchy	Year Start	Year End
63	4	NOF	Restrict access to buses, pedestrians, and cyclists only on Ariki Street between Egmont Street and Brougham Street	Yes		Reconfigure streets to align with One Network Framework outcomes and provide facilities for all modes	100m street scape upgrade	$184,000.00	$46,000.00	1	1	1	1	1	Demand Management	2028	2028
65	2	Workshop	Maximise functional attractiveness of the Coastal Walkway to increase usage	Yes		Improve attractiveness and accessibility of active mode facilities				1	1	1	1	1	Best Use of Existing Network		
66	2	Workshop	Park and ride options for cycling on the Coastal Walkway which includes bike parking and hire at key points	Yes		Improve attractiveness and accessibility of active mode facilities	Small park and ride facilities at south New Plymouth, West New Plymouth , Waitara and Bell Block on council land	$10,289,000.00	$2,160,690.00	1	1	1	1	1	Demand Management	2029	2032
67	2	Workshop	Street lighting for key commuting active mode corridors to improve year round usage	Yes		Improve attractiveness and accessibility of active mode facilities	Assume lighting for 48,046m of interested but concernced gully/bush cycle routes	$16,053,000.00	$2,889,540.00	1	1	1	1	1	Best Use of Existing Network	2030	2035
70	2	Workshop	Road pricing system	Yes		Travel demand and travel behaviour management				0	0	1	1	1	Demand Management		
72	2	Workshop	Low traffic neighbourhood greenways for active modes	Yes	Roll out from centre fringe to outer suburbs over time	Improve attractiveness and accessibility of active mode facilities	Nothing needed, covered elsewhere Possibly require signs and lines. No major change to infrastructre	$0.00	$0.00	1	1	1	1	1	Integrated Planning	2033	2033
77	2	Workshop	15 minute city concept - villages with services, retail, and place making to avoid CBD travel for communities over 5km away	Yes		Reduce the need to travel where car alternatives are less viable	District Plan review	$333,333.33	$0.00	0	0	0	1	1	Integrated Planning	2030	2039
78	2	Workshop	Encourage businesses to offer workplace travel options and work from home schemes to employees	Yes		Reduce the need to travel where car alternatives are less viable				0	0	0	1	1	Demand Management		
84	2	Workshop	Limit growth to existing urban areas in New Plymouth, southern growth areas, and Bell Block	Yes	More density and mix used developments around local centres and in the City Centre (e.g., East of Liardet Street) that is more intensive than existing NPDC growth strategy	Increase population density in areas close to key urban centres and destinations	District Plan review	$333,333.33	$0.00	0	1	0	1	1	Integrated Planning	2030	2039

Interventions										Programme Options 69	100	102	97	109			
ID	Related Problem	Source	Intervention Description	Carried through to short list?	Comment	Intervention Category	Approximate Project Scope	2023-2053 P50 CAPEX	2023-2053 P50 OPEX	Common interventions	Liveability	Connected urban centres	Reduce transport emissions hybrid	Preferred	Intervention Hierarchy	Year Start	Year End
86	2	Workshop	Social housing that located in areas with good transport choices	Yes	not just the outskirts to provide better transport access	Increase population density in areas close to key urban centres and destinations	District Plan review	$333,333.33	$0.00	0	1	0	1	1	Integrated Planning	2030	2039
88	2	Workshop	Subsidised shared bike scheme	Yes		Improve lower cost multi-modal access, especially for communities outside of central New Plymouth				1	1	1	1	1	Demand Management		
95	3	Workshop	Mode priority and ONF investigation with walking as top priority	No	Covered by 337					0	0	0	0	0	Integrated Planning		
96	3	Workshop	Freight movements utilising the rail network	Yes		Reduce the fossil fuel energy use of the transport network				0	1	0	1	0	Best Use of Existing Network		
99	3	Workshop	Subsidising bicycles, wet weather gear, and other bicycle equipment	Yes		Improve lower cost multi-modal access, especially for communities outside of central New Plymouth				1	1	1	1	1	Demand Management		
100	3	Workshop	Second route into New Plymouth from the east to reduce severance (e.g., Smart Road / Burgess Park)	Yes	This would create better distribution options for commuters and freight and more resilience	Resilient connections at network pinch points for all modes	5km of 2 lane major road construction and a bridge (previously 4 lane)	$0.00	$0.00	0	0	1	0	1	New Infrastructure	2059	2063
101	3	Workshop	Focus movements on one SH route through the centre of New Plymouth (e.g. SH45) and detune the other roads (e.g. SH44) for a more people focus	Yes	should be detuned to create a better link between the CBD and the coast	Reconfigure streets to align with One Network Framework outcomes and provide facilities for all modes	2000m on SH44 (Morley to Eliot) of traffic calming and 8 intersection upgrades with raised platforms	$10,320,000.00	$1,857,600.00	0	1	1	0	1	Best Use of Existing Network	2031	2035
105	3	Workshop	Implement turning restrictions at intersections	Yes		Resilient connections at network pinch points for	Side road traffic calming at 4 intersections (Wills,	$1,822,000.00	$455,500.00	0	0	1	0	1	Best Use of Existing	2028	2028
106	3	Workshop	Colson Road to Henwood Road as parallel route to SH3	No	Business as usual roading improvements (Indicative Rd in District Plan)					0	0	0	0	0	New Infrastructure		
107	3	Workshop	Convert one-way SH system in New Plymouth to a single two-way SH to reduce severance	Yes	(with interchanges upgrade as required)	Reconfigure streets to align with One Network Framework outcomes and provide facilities for all modes	2500m on SH45 of traffic calming, 2500m on SH45 of intersection upgrades and lane widening	$1,230,000.00	$221,400.00	0	1	1	0	1	Best Use of Existing Network	2031	2035

Interventions										Programme Options 69		100	102	97	109			
ID	Related Problem	Source	Intervention Description	Carried through to short list?	Comment	Intervention Category	Approximate Project Scope	2023-2053 P50 CAPEX	2023-2053 P50 OPEX	Common interventions	Liveability	Connected urban centres	Reduce transport emissions hybrid	Preferred	Intervention Hierarchy	Year Start	Year End
109	3	Workshop	Divert freight from the port away from the New Plymouth city centre through a ring road using local arterials as spokes for distribution (Western ring route)	Yes		Reconfigure streets to align with One Network Framework outcomes and provide facilities for all modes	9000m of new major road construction from the Port to The Valley	$0.00	$0.00	0	1	0	0	0	New Infrastructure		
114	3	Workshop	Inland rail freight hub to intercept road freight	Yes		Reduce the fossil fuel energy use of the transport network				0	1	0	1	0	New Infrastructure		
115	3	Workshop	Freight movements utilising the shipping network	Yes		Reduce the fossil fuel energy use of the transport network				0	1	0	1	0	Best Use of Existing Network		
122	3	LTP	Strandon Village place focussed treatments	Yes		Reconfigure streets to align with One Network Framework outcomes and provide facilities for all modes	1000m of traffic calming, side road calming, Raised zebra crossing at Ronald st, Nobs line, Strandon place, Kowhai st, Paynters ave	$1,393,000.00	$348,250.00	1	1	1	1	1	Integrated Planning	2028	2028
123	3	LTP	Inglewood CBD upgrade to reduce severance	Yes		Reconfigure streets to align with One Network Framework outcomes and provide facilities for all modes	1000m of traffic calming, side road calming with kerb buildouts	$689,000.00	$172,250.00	1	1	1	1	1	Integrated Planning	2028	2028
127	3	NOF	Configure intersections with traffic calming elements on arterial routes to discourage use of residential roads	Yes		Reconfigure streets to align with One Network Framework outcomes and provide facilities for all modes				1	1	1	1	1	Best Use of Existing Network		
131	4	Workshop	Promote the use of sustainable transport	Yes	Promote this to the community, create roles in council to create and support travel plans etc.	Improve attractiveness and accessibility of active mode facilities				1	1	1	1	1	Demand Management		
132	4	Workshop	Bicycle skills, safety, and maintenance education programmes	Yes		Improve attractiveness and accessibility of active mode facilities				1	1	1	1	1	Demand Management		
140	3	Workshop	Utilise existing private and public carparks together to reduce on-street parking	Yes	to prevent people parking on Devon and in the city	Reconfigure streets to align with One Network Framework outcomes and provide facilities for all modes				1	1	1	1	1	Best Use of Existing Network		
141	4	Workshop	Reduced severance between walkways (e.g., Coastal walkway, Huatoki, and Te Henui)	Yes	Making it safer to travel between these to create a better connected network	Improve attractiveness and accessibility of active mode facilities				1	1	1	1	1	Best Use of Existing Network		

Interventions										Programme Options 69	100	102	97	109			
ID	Related Problem	Source	Intervention Description	Carried through to short list?	Comment	Intervention Category	Approximate Project Scope	2023-2053 P50 CAPEX	2023-2053 P50 OPEX	Common interventions	Liveability	Connected urban centres	Reduce transport emissions hybrid	Preferred	Intervention Hierarchy	Year Start	Year End
142	4	Workshop	More active mode connections across high speed state highways in fringe areas	Yes		Improve lower cost multi-modal access, especially for communities outside of central New Plymouth	Crossings on state highway at 10 rural town locations with high speeds (Mōhakatino, Tongapōrutu, Uruti, Mimi, Onaero, Motunui, Brixton, Tataraimaka, Pitone, Waiongana) (previously underpasses)	$13,793,000.00	$1,793,090.00	1	1	1	1	1	New Infrastructure	2036	2040
143	4	Workshop	Extend the coastal walkway to the southern coastal areas of the district (e.g. Ōakura)	Yes		Improve lower cost multi-modal access, especially for communities outside of central New Plymouth	10km off-road shared sealed path 4m wide from New Plymouth to ōkato via a combination of private and public land (previously 20km to ōkato)	$22,932,000.00	$2,063,880.00	1	1	1	1	1	New Infrastructure	2041	2044
145	4	Workshop	Low speed school zones	No	Note overlap with 124 but the relevant for this problem as well					0	0	0	0	0	Demand Management		
150	4	Workshop	Encourage businesses to offer employees electric bikes and bus passes over company cars	Yes		Improve lower cost multi-modal access, especially for communities outside of central New Plymouth				1	1	1	1	1	Demand Management		
151	4	Workshop	Green links at Pukekura and Pūkākā for improved active mode access in New Plymouth	Yes	https://www.npdc.govt.nz/planning-our-future/ngamotu-new-plymouth-city-centre-strategy/activating-our-green-links/pukaka-green-link/	Improve attractiveness and accessibility of active mode facilities				1	1	1	1	1	New Infrastructure		
154	4	Cycling Strategy (2019)	New Plymouth - Enthused and Confident Routes	Yes		Complete the urban cycle network	Painted buffered cycle lanes on existing roads to replace parking	$1,403,010.00	$294,632.10	1	1	1	1	1	Best Use of Existing Network	2028	2032
155	4	Cycling Strategy (2019)	New Plymouth - Interested but Concerned Routes	Yes		Complete the urban cycle network	Seperated cycle ways with concrete seperators and traffic calming on side roads	$19,363,530.00	$1,742,717.70	1	1	1	1	1	New Infrastructure	2040	2044

Interventions										Programme Options 69		100	102	97	109			
ID	Related Problem	Source	Intervention Description	Carried through to short list?	Comment	Intervention Category	Approximate Project Scope	2023-2053 P50 CAPEX	2023-2053 P50 OPEX	Common interventions	Liveability	Connected urban centres	Reduce transport emissions hybrid	Preferred	Intervention Hierarchy	Year Start	Year End
156	4	Cycling Strategy (2019)	Bell Block - Enthused and Confident Routes	Yes		Complete the urban cycle network	Painted buffered cycle lanes on existing roads to replace parking	$1,403,010.00	$252,541.80	1	1	1	1	1	Best Use of Existing Network	2031	2035
157	4	Cycling Strategy (2019)	Bell Block - Interested but Concerned Routes	Yes		Complete the urban cycle network	Seperated cycle ways with concrete seperators and traffic calming on side roads	$19,363,530.00	$1,742,717.70	1	1	1	1	1	New Infrastructure	2040	2044
158	4	Cycling Strategy (2019)	Waitara - Enthused and Confident Routes	Yes		Complete the urban cycle network	No E+C routes in Waitara	$0.00	$0.00	1	1	1	1	1	Best Use of Existing Network	2031	2035
159	4	Cycling Strategy (2019)	Waitara - Interested but Concerned Routes	Yes		Complete the urban cycle network	Seperated cycle ways with concrete seperators and traffic calming on side roads	$13,254,400.00	$1,192,896.00	1	1	1	1	1	New Infrastructure	2040	2044
160	4	Cycling Strategy (2019)	Inglewood - Enthused and Confident Routes	Yes		Complete the urban cycle network	Painted buffered cycle lanes on existing roads to replace parking	$81,200.00	$14,616.00	1	1	1	1	1	Best Use of Existing Network	2031	2035
161	4	Cycling Strategy (2019)	Inglewood - Interested but Concerned Routes	Yes		Complete the urban cycle network	Seperated cycle ways with concrete seperators and traffic calming on side roads	$2,799,460.00	$251,951.40	1	1	1	1	1	New Infrastructure	2040	2044
170	4	City Centre Strategy	Convert Molesworth Street to boulevard with high pedestrian amenity and safety	No	Covered by 101					0	0	0	0	0	Best Use of Existing Network		

Interventions										Programme Options 69		100	102	97	109			
ID	Related Problem	Source	Intervention Description	Carried through to short list?	Comment	Intervention Category	Approximate Project Scope	2023-2053 P50 CAPEX	2023-2053 P50 OPEX	Common interventions	Liveability	Connected urban centres	Reduce transport emissions hybrid	Preferred	Intervention Hierarchy	Year Start	Year End
171	4	NOF	Signalised crossing points at schools in New Plymouth	Yes		Safety improvements for existing active mode facilities	Reconfigure 6 existing zebra crossings (spanning 2 lanes and 2 cycle lanes) into signalised crossings. Wynyard @ Bell Block, Brois @ Woodleigh School, Tukapa @ FDMC, Coronation @ Highlands, Mangorei @ Merrilands, Mclean @ Waitara	$395,000.00	$0.00	0	1	1	0	1	New Infrastructure	2028	2028
173	4	NOF	Intersection improvements for pedestrians and cyclists in New Plymouth	Yes		Safety improvements for existing active mode facilities				0	1	1	0	1	Best Use of Existing Network		
174	4	NOF	Midblock improvements for pedestrians and cyclists in New Plymouth	Yes		Safety improvements for existing active mode facilities				0	1	1	0	1	Best Use of Existing Network		
189	4	NOF	Reprioritise Devon Street East - Mangorei Road intersection to encourage through traffic to use SH3 Northgate (via Mangorei Road) to travel through Fitzroy	Yes		Reconfigure streets to align with One Network Framework outcomes and provide facilities for all modes	Signalised intersection with platforms	$1,230,000.00	$0.00	1	1	1	1	1	Best Use of Existing Network	2028	2028
193	4	RLTP	Taranaki Crossing 'Maunga to Surf' recreational route	No						1	1	1	1	1	New Infrastructure		
194	4	RLTP	Footpath improvements to align with ONF outcomes in high place function areas	Yes	Encompasses both quality and coverage: Level, wide enough, on both sides	Improve lower cost multi-modal access, especially for communities outside of central New Plymouth	500m streetscape upgrade in each rural town (ōkato, ōakura, urenui)	$2,730,000.00	$491,400.00	1	1	1	1	1	Best Use of Existing Network	2033	2035
195	4	RLTP	Corbett Park footpath extension from Oākura	No						1	1	1	1	1	New Infrastructure		
198	4	LTP	Waiwhakaiho Pedestrian and Cycle bridge from Fitzroy to The Valley	No	Covered in do-minimum					0	0	0	0	0	New Infrastructure		
201	4	LTP	Inglewood Windsor Walkway safety improvements	No						0	1	1	0	1	Best Use of Existing Network		

Interventions									Programme Options 69	100	102	97	109			
ID	Related Problem	Source	Intervention Description	Carried through to short list?	Comment	Intervention Category	Approximate Project Scope	2023-2053 P50 CAPEX	2023-2053 P50 OPEX	Common interventions	Liveability	Connected urban centres	Reduce transport emissions hybrid	Preferred	Intervention Hierarchy	Year Start	Year End
212	4	NOF	Convert Tukapa Street - Sanders Avenue roundabout to signalised intersection with pedestrian priorities	Yes		Safety improvements for existing active mode facilities	Reconfigure intersection from single lane roundabout to single signalised intersection with pedestrian crossings on all legs and remove signalised pedestrian crossing just south of intersection on Tukapa Street.	$560,000.00	$0.00	0	1	1	0	1	Best Use of Existing Network	2028	2028
221	3	RLTP	Increased accessibility for all Te Papakura o Taranaki (Egmont National Park) entrances	Yes		Improve lower cost multi-modal access, especially for communities outside of central New Plymouth				1	1	1	1	1	Demand Management		
222	4	RLTP	Safer speeds following speed management principles (including engagement and implementation)	Yes		Safety improvements for existing active mode facilities	Cost estimate from speed management paper to council	$1,858,000.00	$390,180.00	0	1	1	0	1	Best Use of Existing Network	2028	2032
223	3	RLTP	Port Taranaki improvements - vehicle safety and accessibility	Yes		Resilient connections at network pinch points for all modes	Intersection upgrades with signals on SH44/Ngamotu, SH44/Morely and a roundabout at SH45/Beach Road	$0.00	$0.00	0	0	1	0	0	Best Use of Existing Network		
224	2	RLTP	Electric vehicle charging infrastructure	Yes		Reduce the fossil fuel energy use of the transport network	10 new electric charging stations across the district	$0.00	$0.00	0	1	0	1	0	New Infrastructure		
225	2	RLTP	Long-term retention of rail line between Hāwera and New Plymouth for freight	Yes		Reduce the fossil fuel energy use of the transport network				0	1	0	1	0	Best Use of Existing Network		
227	2	RLTP	SH3, 3A, and 45 improvements addressing safety, reliability, and resilience issues	Yes		Resilient connections at network pinch points for all modes	Minor safety works (barriers, curve signage, pavement widening etc.) at high risk locations. Assume 10% of Waitara to Mokau - 65km	$101,148,000.00	$18,206,640.00	0	0	1	0	1	Best Use of Existing Network	2030	2035
231	4	RLTP	Emerging tourism routes including trails and on-road cycling	Yes		Improve lower cost multi-modal access, especially for communities outside of central New Plymouth				1	1	1	1	1	New Infrastructure		
233	3	LTP	David Street - Tukapa Street signalisation	Yes		Safety improvements for existing active mode facilities	Costed as per LTP	$1,098,680.00	$274,670.00	0	1	1	0	1	Best Use of Existing Network	2028	2028

Interventions										Programme Options 69	100	102	97	109			
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245	3	LTP	Pohutukawa Place walking and drainage improvements	No	Covered in do-minimum					0	0	0	0	0	Best Use of Existing Network		
258	3	LTP	Elliot Street precinct development	Yes		Reconfigure streets to align with One Network Framework outcomes and provide facilities for all modes	700m streetscape upgrade between the Coast and Lemon Street	$1,276,000.00	$319,000.00	1	1	1	1	1	New Infrastructure	2028	2028
268	4	TRC Future of Transport in Taranaki	Cycle infrastructure within Ōkato and Egmont Village	Yes		Improve lower cost multi-modal access, especially for communities outside of central New Plymouth	1500m of separated cycle ways and two raised crossing points in both ōkato and Egmont Village	$12,549,000.00	$1,129,410.00	1	1	1	1	1	New Infrastructure	2041	2044
274	4	TRC Future of Transport in Taranaki	Upgrade surfaces of all walking and bike paths in New Plymouth	Yes		Safety improvements for existing active mode facilities				0	1	1	0	1	Best Use of Existing Network		
279	4	TRC Future of Transport in Taranaki	Safer school crossings with shelters	Yes		Improve attractiveness and accessibility of active mode facilities	51 school facilities as per education counts. Provide a raised zebra crossing outside each school and 200m of footpath links	$7,521,000.00	$1,579,410.00	1	1	1	1	1	Best Use of Existing Network	2028	2032
280	4	TRC Future of Transport in Taranaki	More safe and secure bike parking in city centre that considers repurposing existing car parks	Yes		Improve attractiveness and accessibility of active mode facilities	25 new small bike stands in New Plymouth	$206,000.00	$51,500.00	1	1	1	1	1	Demand Management	2028	2028
285	1	TRC Future of Transport in Taranaki	Sufficient bus transfer windows to connect different routes	Yes		Improve PT frequencies and LOS to make PT a more attractive option				1	1	1	1	1	Demand Management		
286	4	TRC Future of Transport in Taranaki	Improved and increased seating in town centres	Yes		Improve attractiveness and accessibility of active mode facilities	100 new seats across the district	$2,457,000.00	$515,970.00	1	1	1	1	1	New Infrastructure	2028	2032
293	4	TRC Future of Transport in Taranaki	Better active mode facilities in Urenui	Yes		Improve lower cost multi-modal access, especially for communities outside of central New Plymouth	1000m of separated cycle ways and two raised crossing points	$8,323,000.00	$1,081,990.00	1	1	1	1	1	New Infrastructure	2036	2040
295	2	Grouped from above interventions	New Plymouth Intersection resilience and capacity upgrades	Yes		Resilient connections at network pinch points for all modes	Reconfigured existing traffic signal intersection at 10 locations (new geometry, new signal aspects etc.)	$12,285,000.00	$0.00	0	0	1	0	1	Best Use of Existing Network	2045	2049
296	3	Grouped from above interventions	New Plymouth general road corridor safety improvements	No	Business as usual roading improvements (Otararoa Road geometric improvement Wills Road Widening Bishop Road extension)					0	0	0	0	0	Best Use of Existing Network		

Interventions									Programme Options 69	100	102	97	109			
ID	Related Problem	Source	Intervention Description	Carried through to short list?	Comment	Intervention Category	Approximate Project Scope	2023-2053 P50 CAPEX	2023-2053 P50 OPEX	Common interventions	Liveability	Connected urban centres	Reduce transport emissions hybrid	Preferred	Intervention Hierarchy	Year Start	Year End
297	3	Grouped from above interventions	Improved connection of off-road trails to road network	Yes		Improve lower cost multi-modal access, especially for communities outside of central New Plymouth				1	1	1	1	1	Best Use of Existing Network		
298	3	Grouped from above interventions	Bridge upgrades	Yes		Safety improvements for existing active mode facilities	Bridge widening on state highways - locations 3x	$3,932,000.00	$707,760.00	0	1	1	0	1	Best Use of Existing Network	2033	2035
299	3	Workshop	Resilience improvements for isolated communities to improve access to the wider transport network	Yes		Resilient connections at network pinch points for all modes				0	0	1	0	1	Demand Management		
300	3	Grouped from above interventions	Shared paths in New Plymouth along green corridors	Yes		Improve attractiveness and accessibility of active mode facilities	IBC bush and gully routes in New Plymouth and Bell Block	$26,502,700.00	$2,385,243.00	1	1	1	1	1	New Infrastructure	2040	2044
301	4	NPDC team	More mobility parking, better positioned and designed to standard	Yes		Reconfigure streets to align with One Network Framework outcomes and provide facilities for all modes	Retrofitting 20 parks with drop kerbs, markings and one sign per park	$338,000.00	$0.00	1	1	1	1	1	Demand Management	2028	2028
302	4	NPDC team	Footpaths in Waitara to same standard as rest of district - priority linking to schools, shops, coastal walkway extension	Yes		Improve lower cost multi-modal access, especially for communities outside of central New Plymouth	8000m of general footpath renwals and 6 traffic calmed side roads to connect the town centre with the coastal pathway	$20,215,000.00	$4,245,150.00	1	1	1	1	1	Best Use of Existing Network	2028	2032
304	3	PBC team	Inclusive access to community hubs and recreation facilities	Yes		Improve lower cost multi-modal access, especially for communities outside of central New Plymouth				1	1	1	1	1	Demand Management		
305	1	PBC team	Upgrade key active mode links to PT stops	Yes		Align PT routes with key destinations and make PT more accessible	50 bus shelters. Assume one raised platform zebra crossing and 500m of footpath upgrades at each location.	$13,515,000.00	$2,432,700.00	1	1	1	1	1	Best Use of Existing Network	2031	2035
306	1	TRC team	Ensure PT is well-connected to educational facilities	Yes		Align PT routes with key destinations and make PT more accessible				1	1	1	1	1	Best Use of Existing Network		
308	3	PBC team	Inclusive access to Marae	Yes		Improve lower cost multi-modal access, especially for communities outside of central New Plymouth	2000m of new footpath at 8 Marae and 1 x traffic calming raised platforms at 4 Marae in the district	$6,816,000.00	$886,080.00	1	1	1	1	1	Best Use of Existing Network	2036	2040

Interventions									Programme Options 69	100	102	97	109			
ID	Related Problem	Source	Intervention Description	Carried through to short list?	Comment	Intervention Category	Approximate Project Scope	2023-2053 P50 CAPEX	2023-2053 P50 OPEX	Common interventions	Liveability	Connected urban centres	Reduce transport emissions hybrid	Preferred	Intervention Hierarchy	Year Start	Year End
310	1	TRC team	Ensure PT is available to communities with income lower than 20% bracket	Yes		Improve lower cost multi-modal access, especially for communities outside of central New Plymouth				1	1	1	1	1	Demand Management		
313	2	TRC team	Medium and high density developments with urban amenities nearby	Yes		Increase population density in areas close to key urban centres and destinations	District Plan review	$333,333.33	$0.00	0	1	0	1	1	Integrated Planning	2030	2039
314	3	TRC team	Restructure freight to favour local processing rather than commodity driven	Yes		Reduce the fossil fuel energy use of the transport network				0	1	0	1	0	Best Use of Existing Network		
315	3	TRC team	Improve lighting in urban centres around the district to create a softer and safer urban atmosphere	Yes		Improve attractiveness and accessibility of active mode facilities				1	1	1	1	1	Best Use of Existing Network		
316	3	SWOT	Create more people focussed spaces in the district towns and centres	Yes		Reconfigure streets to align with One Network Framework outcomes and provide facilities for all modes	1000m of traffic calming, side road calming, 3 intersections with platforms retrofitted in Bell Block, Waitara, ōakura, ōkato, urenui	$19,656,000.00	$2,751,840.00	1	1	1	1	1	Best Use of Existing Network	2036	2039
317	3	SWOT	Consider alternative routes for vehicles past towns	Yes		Reconfigure streets to align with One Network Framework outcomes and provide facilities for all modes	10km total of major road construction around Inglewood, ōakura, egmont village, urenui	$0.00	$0.00	0	1	0	0	0	New Infrastructure		
318	4	Review of DP	Upgrade active modes links to key amenities and existing bus stops for Development Areas identified in District Plan	Yes		Complete the urban cycle network				1	1	1	1	1	New Infrastructure		
319	2	Review of DP	Addition of local centre/mixed use in Development Areas identified in District Plan which are located more than 2km away from basic amenities	Yes		Reduce the need to travel where car alternatives are less viable	District Plan review	$333,333.33	$0.00	0	0	0	1	1	New Infrastructure	2030	2039
320	1	Review of DP	Extend bus routes to link to Development Areas identified in District Plan	Yes		Align PT routes with key destinations and make PT more accessible	Extending three existing bus routes, assume 5 new bus shelters with digital displays per route	$1,106,000.00	$199,080.00	1	1	1	1	1	Best Use of Existing Network	2031	2035

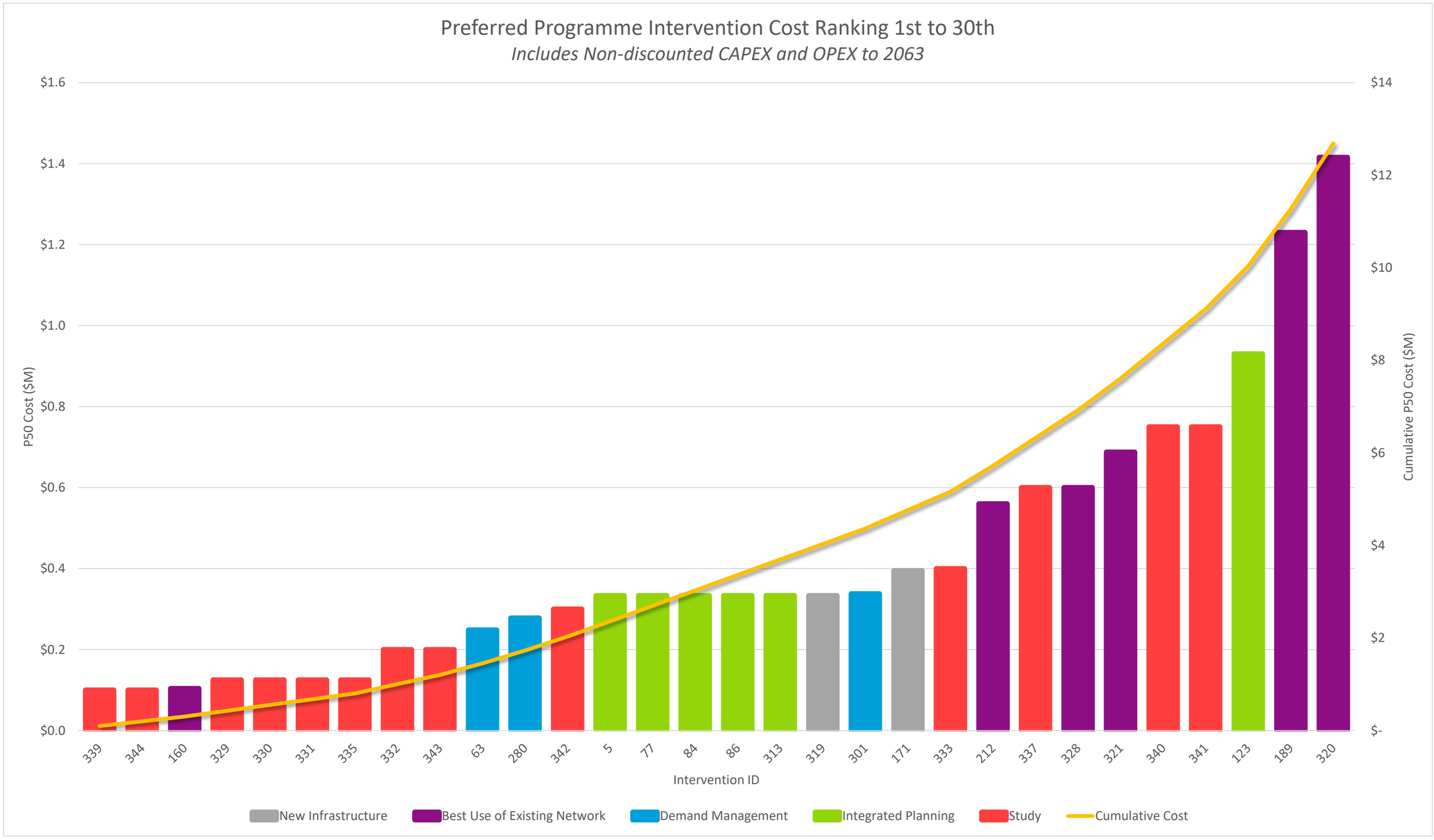
Interventions										Programme Options 69	100	102	97	109			
ID	Related Problem	Source	Intervention Description	Carried through to short list?	Comment	Intervention Category	Approximate Project Scope	2023-2053 P50 CAPEX	2023-2053 P50 OPEX	Common interventions	Liveability	Connected urban centres	Reduce transport emissions hybrid	Preferred	Intervention Hierarchy	Year Start	Year End
321	3	Stuart upload to external folder: Register of projects for LTP	Raised pedestrian crossings around the district	Yes		Safety improvements for existing active mode facilities	Install 8 new raised zebra crossing points. Devon/Belt, SH3/Kelly, Cumberland/Hill, Mangati walkway/Connett, Lawry/Mabgaotuku walkway, Lemon, Marama/Maui, Rangitake/Centannial	$525,000.00	$110,250.00	0	1	1	0	1	Best Use of Existing Network	2028	2032
324	3	Grouped from above interventions	New Plymouth general intersection safety improvements	Yes		Safe road connections at network pinch points	10 intersection upgrades with retrofitted raised safety platforms on all 4 approaches and geometry changes.	$0.00	$0.00	0	1	0	0	0	Best Use of Existing Network		
325	1	Workshop	A bus network focussing on routes to major centres in the city e.g. a bus from the valley, hospital, library, multisport hub etc.	Yes		Align PT routes with key destinations and make PT more accessible				1	1	1	1	1	Demand Management		
326	1	NPDC team	Minor bus stop improvements	Yes	Covered by 17 and 305					0	0	0	0	1	Study		
327	1	Workshop	Park and rides in fringe commuter suburbs (e.g., Bell Block, Waitara)	Yes		Align PT routes with key destinations and make PT more accessible	Park and ride facility in Waitara, Bell Block, one in south New Plymouth and one in west New Plymouth. Assume on council land.	$25,717,000.00	$3,600,380.00	1	1	1	1	1	New Infrastructure	2036	2039
328	3	PBC team	Traffic signal optimisation and coordination	Yes		Resilient connections at network pinch points for all modes	Signal optimisation study, including development of operational model for New Plymouth	$600,000.00	$0.00	0	0	1	0	1	Best Use of Existing Network	2030	2031
329	1	PBC team	Study to focus on supporting access PT routes across a wider area	Yes	Precursor to 305, 320, 327	Align PT routes with key destinations and make PT more accessible	PT BC	$125,000.00	$0.00	1	1	1	1	1	Study	2024	2026
330	1	PBC team	Study to focus on new PT se	Yes	Precursor to 1, 6, 10, 21, 29	Improve public transport infrastructure and travel time to make PT more attractive and accessible	PT BC	$125,000.00	$0.00	0	0	1	1	1	Study	2024	2026
331	1	PBC team	Study to focus on new PT digital infrastructure	Yes	Precursor to 42, 43	Improve PT frequencies and LOS to make PT a more attractive option	PT BC	$125,000.00	$0.00	1	1	1	1	1	Study	2024	2026
332	2	PBC team	Study to focus on regional active mode connections	Yes	Precursor to 142, 143, 193, 221, 231, 297	Improve lower cost multi-modal access, especially for communities outside of central New Plymouth	Study	$200,000.00	$0.00	1	1	1	1	1	Study	2028	2028

Interventions										Programme Options 69		100		102		97		109				
ID	Related Problem	Source	Intervention Description	Carried through to short list?	Comment	Intervention Category	Approximate Project Scope	2023-2053 P50 CAPEX	2023-2053 P50 OPEX	Common interventions	Liveability	Connected urban centres	Reduce transport emissions hybrid	Preferred	Intervention Hierarchy	Year Start	Year End
333	2	PBC team	Study to investigate strategic upgrade priorities	Yes	Precursor to 100, 223, 227, 295, 299	Resilient connections at network pinch points for all modes	Study	$400,000.00	$0.00	0	0	1	0	1	Study	2024	2025
334	3	PBC team	Study to investigate shifting freight away from the road network	Yes	Precursor to 96, 114, 115, 225, 314	Reduce the fossil fuel energy use of the transport network	Study	$0.00	$0.00	0	1	0	1	0	Study		
335	3	PBC team	Study to investigate viability of new buses	Yes	Precursor to 48	Reduce the fossil fuel energy use of the transport network	PT BC (previously Reduce the fossil fuel energy use of the transport network)	$125,000.00	$0.00	0	1	1	1	1	Study	2024	2026
336	2	PBC team	Study to investigate road pricing strategy	Yes	Precursor to 70	Travel demand and travel behaviour management	Includes Western Ring Route IBC	$2,000,000.00	$0.00	0	0	1	1	1	Study	2025	2028
337	3	PBC team	New Plymouth District ONF	Yes	Precursor to 101, 107, 109, 316, 317	Reconfigure streets to align with One Network Framework outcomes and provide facilities for all modes	Study	$600,000.00	$0.00	1	1	1	1	1	Study	2024	2029
338	3	PBC team	New Plymouth general inter	Yes	Precursor to 324	Safe road connections at network pinch points	Study	$0.00	$0.00	0	1	0	0	0	Study		
339	4	PBC team	District wide upgrade packa	Yes	Precursor to 298	Safety improvements for existing active mode facilities	Study	$100,000.00	$0.00	0	1	1	0	1	Study	2026	2026
340	4	PBC team	High LOS cycle facility engag	Yes	Precursor to 155, 157, 159, 161	Complete the urban cycle network	Separated cycleway IBC	$750,000.00	$0.00	1	1	1	1	1	Study	2027	2029
341	4	PBC team	Study to focus on new facilities	Yes	Precursor to 65, 67, 72, 141, 151, 195, 286, 300, 315	Improve attractiveness and accessibility of active mode facilities	Separated cycleway IBC	$750,000.00	$0.00	1	1	1	1	1	Study	2027	2029
342	3	PBC team	Update Network Operating	Yes	Precursor to 337	Reconfigure streets to align with One Network Framework outcomes and provide facilities for all modes	Update	$300,000.00	$0.00	1	1	1	1	1	Study	2024	2025
343	2	PBC team	Study to identify Land use changes to support higher density residential areas	Yes	Precursor to 5, 84, 86, 313	Increase population density in areas close to key urban centres and destinations	Study	$200,000.00	$0.00	0	1	0	1	1	Study	2026	2026
344	3	PBC team	Parking strategy study	Yes	Precursor to 3	Travel demand and travel behaviour management	Study	$100,000.00	$0.00	0	0	1	1	1	Study	2027	2027

3. Preferred programme cost ranking graphs

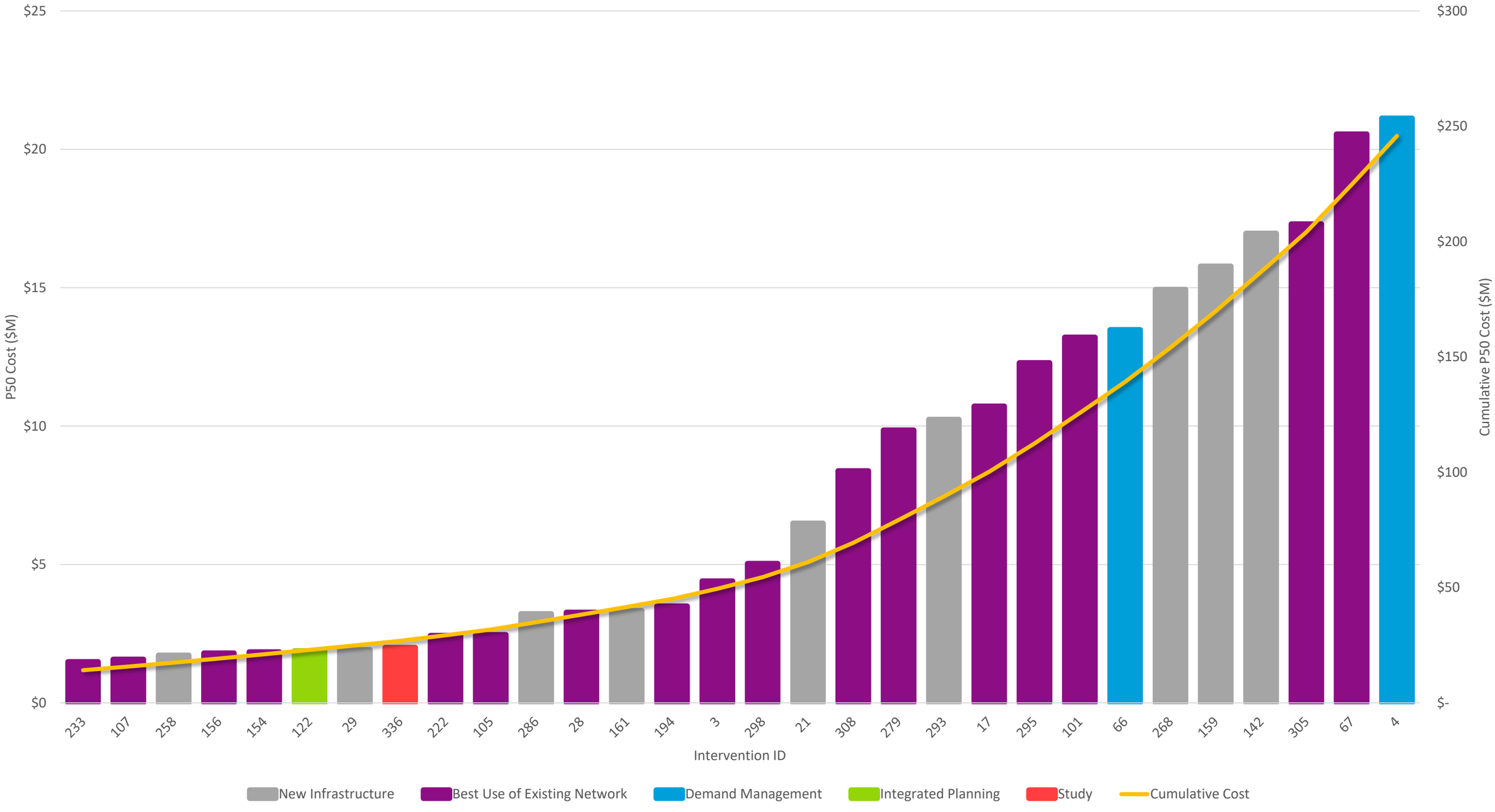
Cost ranking of preferred programme interventions

The following graphs show the ranking of interventions by non-discounted cost and coloured by Waka Kotahi intervention hierarchy category within the preferred programme. This ranking demonstrates a focus on studies and cost-effective interventions that sit higher up the intervention hierarchy. The intervention ID on the x-axis maps directly to the Intervention ID given in the first column of the short list interventions table above.



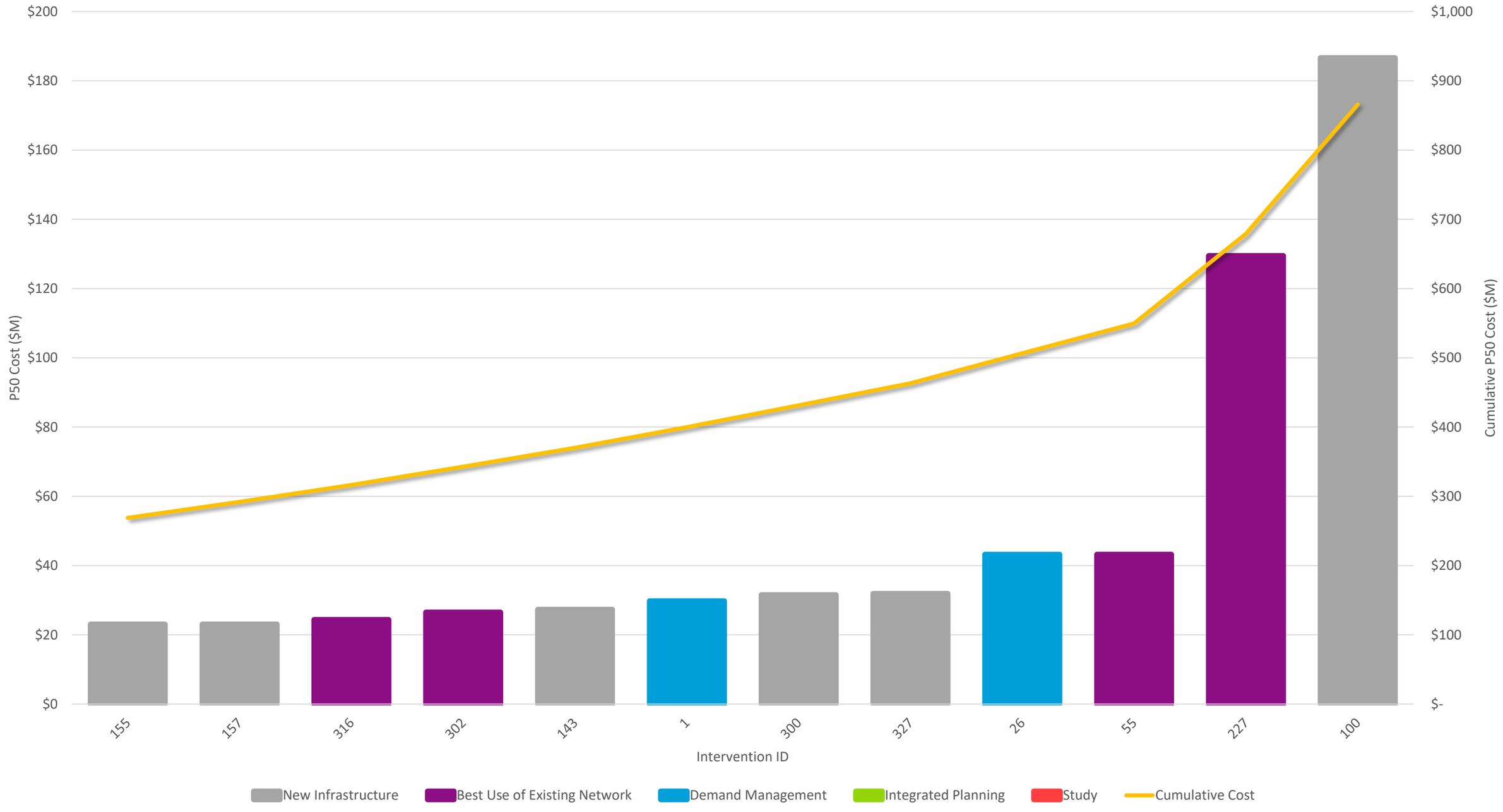
Preferred Programme Intervention Cost Ranking 31st to 60th

Includes Non-discounted CAPEX and OPEX to 2063



Preferred Programme Intervention Cost Ranking 61st to 72nd

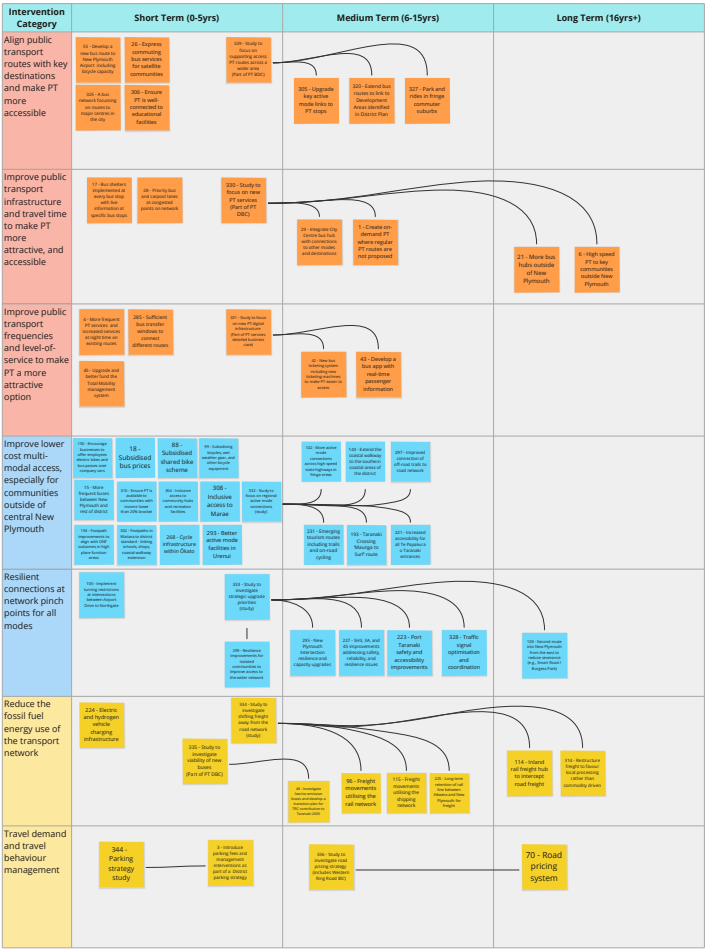
Includes Non-discounted CAPEX and OPEX to 2063



Intervention Categorisation & Scheduling - All categories

New Plymouth District Council ITF Programme Business Case

Intervention Categories



Intervention Categorisation & Scheduling - All categories

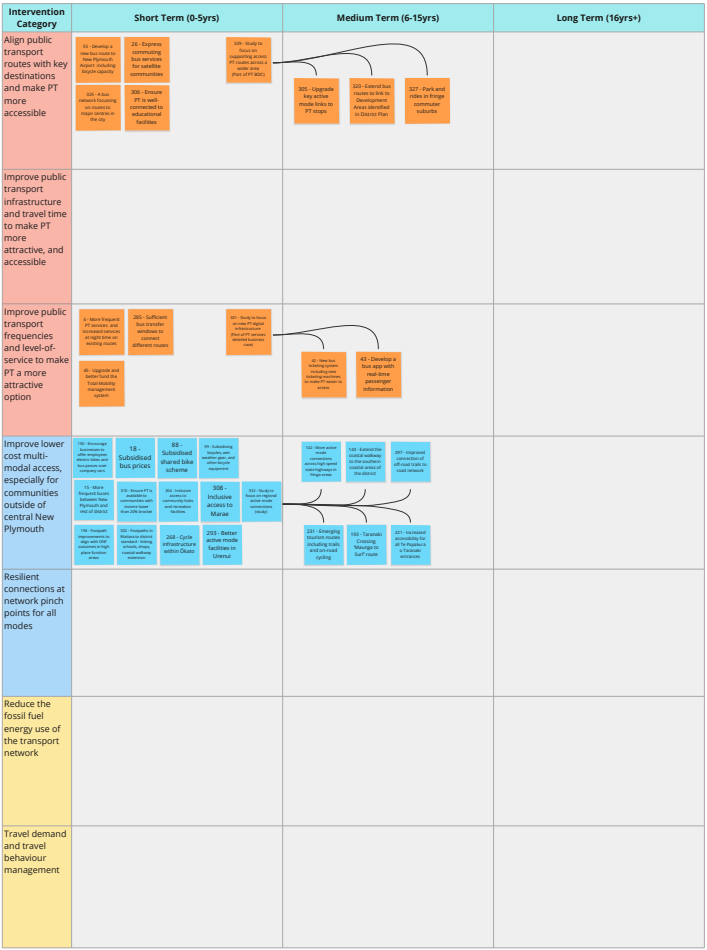
New Plymouth District Council ITF Programme Business Case

Intervention Categories

Intervention Categorisation & Scheduling - Common interventions

New Plymouth District Council ITF Programme Business Case

Intervention Categories



Intervention Categorisation & Scheduling - Common interventions

New Plymouth District Council ITF Programme Business Case

Intervention Categories

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Intervention Categorisation & Scheduling - Liveability

New Plymouth District Council ITF Programme Business Case

Intervention Categories

Intervention Category	Short Term (0-5yrs)	Medium Term (6-15yrs)	Long Term (16yrs+)
Align public transport routes with key destinations and make PT more accessible	55 - Develop a new bus route to New Plymouth Airport including bicycle capacity 26 - Express commuting bus services for satellite communities 325 - A bus network focussing on routes to major centres in the city 306 - Ensure PT is well-connected to educational facilities 329 - Study to focus on supporting access PT routes across a wider area (Part of PT BDC)	305 - Upgrade key active mode links to PT stops 320 - Extend bus routes to link to Development Areas identified in District Plan 327 - Park and rides in fringe commuter suburbs	
Improve public transport infrastructure and travel time to make PT more attractive, and accessible			
Improve public transport frequencies and level-of-service to make PT a more attractive option	4 - More frequent PT services and increased services at night time on existing routes 285 - Sufficient bus transfer windows to connect different routes 45 - Upgrade and better fund the Total Mobility management system 331 - Study to focus on new PT digital infrastructure (Part of PT services detailed business case)	42 - New bus ticketing system including new ticketing machines to make PT easier to access 43 - Develop a bus app with real-time passenger information	
Improve lower cost multi-modal access, especially for communities outside of central New Plymouth	150 - Encourage businesses to offer employees electric bikes and bus passes over company cars 18 - Subsidised bus prices 88 - Subsidised shared bike scheme 99 - Subsidising bicycles, wet weather gear, and other bicycle equipment 15 - More frequent buses between New Plymouth and rest of district 310 - Ensure PT is available to communities with income lower than 20% bracket 304 - Inclusive access to community hubs and recreation facilities 308 - Inclusive access to Marae 332 - Study to focus on regional active mode connections (study) 194 - Footpath improvements to align with ONF outcomes in high place function areas 302 - Footpaths in Waitara to district standard - linking schools, shops, coastal walkway extension 268 - Cycle infrastructure within Ōkato 293 - Better active mode facilities in Urenui	142 - More active mode connections across high speed state highways in fringe areas 143 - Extend the coastal walkway to the southern coastal areas of the district 297 - Improved connection of off-road trails to road network 231 - Emerging tourism routes including trails and on-road cycling 193 - Taranaki Crossing 'Maunga to Surf' route 221 - Increased accessibility for all Te Papakura o Taranaki entrances	
Resilient connections at network pinch points for all modes			
Reduce the fossil fuel energy use of the transport network	224 - Electric and hydrogen vehicle charging infrastructure 334 - Study to investigate shifting freight away from the road network (study) 335 - Study to investigate viability of new buses (Part of PT DBC)	48 - Investigate low/no-emission buses and develop a transition plan for TRC contribution to Taranaki 2050 96 - Freight movements utilising the rail network 115 - Freight movements utilising the shipping network 225 - Long-term retention of rail line between Hāwera and New Plymouth for freight	114 - Inland rail freight hub to intercept road freight 314 - Restructure freight to favour local processing rather than commodity driven
Travel demand and travel behaviour management			

Intervention Categorisation & Scheduling - Liveability

New Plymouth District Council ITF Programme Business Case

Intervention Categories

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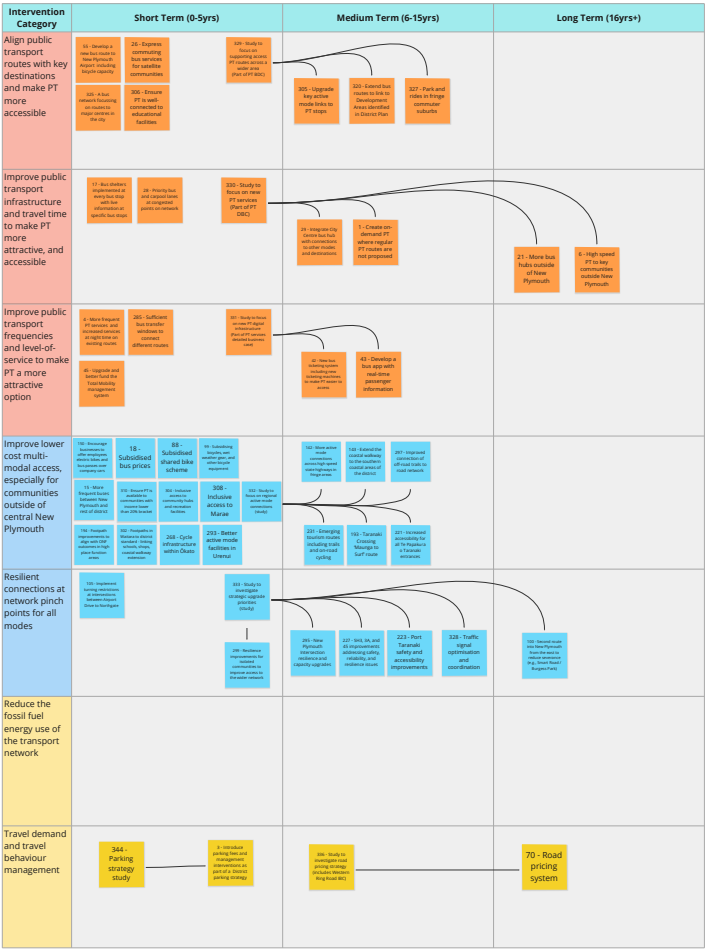
Intervention Categorisation & Scheduling - Connected urban centres

New Plymouth District Council ITF Programme Business Case

Intervention Categories



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Intervention Categorisation & Scheduling - Connected urban centres

New Plymouth District Council ITF Programme Business Case

Intervention Categories

Intervention Category	Short Term (0-5yrs)	Medium Term (6-15yrs)	Long Term (16yrs+)
Reconfigure streets to align with One Network Framework outcomes and provide facilities for all modes	189 - Reprioritise Devon Street East - Mangorei Road intersection to encourage through traffic to use SH3 Northgate to Fitzroy; 63 - Restrict access to buses, pedestrians, and cyclists only on Ariki Street between Egmont Street and Brougham Street; 127 - Configure intersections with traffic calming elements on arterial routes to discourage residential road use; 342 - Update Network Operating Framework; 123 - Inglewood CBD upgrade to reduce severance; 122 - Strandon Village place focussed treatments; 258 - Elliot Street precinct development; 337 - New Plymouth District ONF study (study); 140 - Utilise existing private and public carparks together to reduce on-street parking; 301 - More mobility parking, better positioned and designed to standard	316 - Create more people focussed spaces in the district towns and centres; 101 - Focus movements on one SH route through the centre of New Plymouth (e.g. SH45) and detune the other roads (e.g. SH44) for a more people focus; 107 - Convert one-way SH system in New Plymouth to a single two-way SH to reduce severance	
Safe road connections at network pinch points			
Safety improvements for existing active mode facilities	233 - David Street - Tukapa Street signalisation; 212 - Convert Tukapa Street - Sanders Avenue roundabout to signalised intersection; 173 - Intersection improvements for pedestrians and cyclists in New Plymouth; 339 - District wide upgrade package investigation (study); 222 - Safer speeds following speed management principles (including engagement and implementation); 201 - Inglewood Windsor Walkway safety improvements; 171 - Signalised crossing points at schools in New Plymouth; 321 - Raised pedestrian crossings around the district	298 - Bridge upgrades; 274 - Upgrade surfaces of all walking and bike paths in New Plymouth; 174 - Midblock improvements for pedestrians and cyclists in New Plymouth	
Complete the urban cycle network	318 - Upgrade active modes links to key amenities and existing bus stops for Development Areas identified in District Plan; 340 - High LOS cycle facility engagement and design (Cycleway IBC, then follow-on DBCs)	154 - New Plymouth - Enthused and Confident Routes; 156 - Bell Block - Enthused and Confident Routes; 158 - Waitara - Enthused and Confident Routes; 160 - Inglewood - Enthused and Confident Routes; 155 - New Plymouth - Interested but Concerned Routes; 157 - Bell Block - Interested but Concerned Routes; 159 - Waitara - Interested but Concerned Routes; 161 - Inglewood - Interested but Concerned Routes	
Improve attractiveness and accessibility of active mode facilities	131 - Promote the use of sustainable transport; 132 - Bicycle skills, safety, and maintenance education programmes; 279 - Safer school crossings with shelters; 286 - Improved and increased seating in town centres; 280 - More safe and secure bike parking in city centre - consider repurposing existing car parks; 66 - Park and ride options for cycling on the Coastal Walkway which includes bike parking and hire; 341 - Study to focus on new facilities (Cycleway IBC, then follow-on DBCs)	67 - Street lighting for key commuting active mode corridors to improve year round usage; 315 - Improve lighting in urban centres around the district; 65 - Maximise functional attractiveness of the Coastal Walkway; 141 - Reduced severance between walkways (e.g., Coastal walkway, Huatoki, and Te Henui); 195 - Corbett Park footpath extension from Oākura; 72 - Low traffic neighbourhood greenways for active modes; 151 - Green links at Pukekura and Pūkākā for improved active mode access in New Plymouth; 300 - Shared paths in New Plymouth along green corridors	
Increase population density in areas close to key urban centres and destinations			
Reduce the need to travel where car alternatives are less viable			

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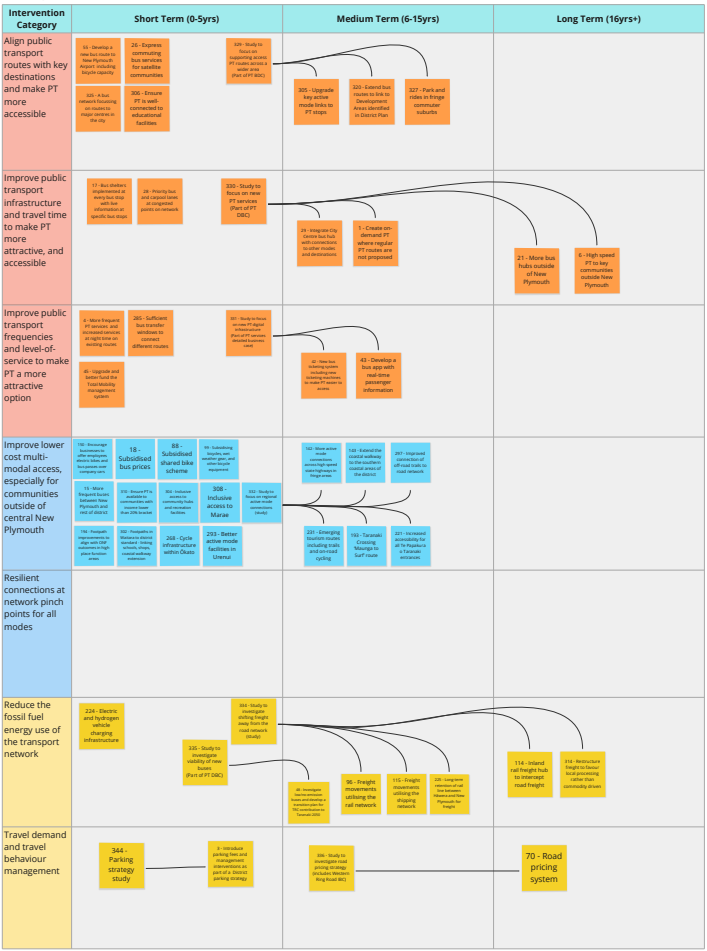
Intervention Categorisation & Scheduling - Reduce transport emissions

New Plymouth District Council ITF Programme Business Case



Intervention Categorisation & Scheduling - Reduce transport emissions

New Plymouth District Council ITF Programme Business Case

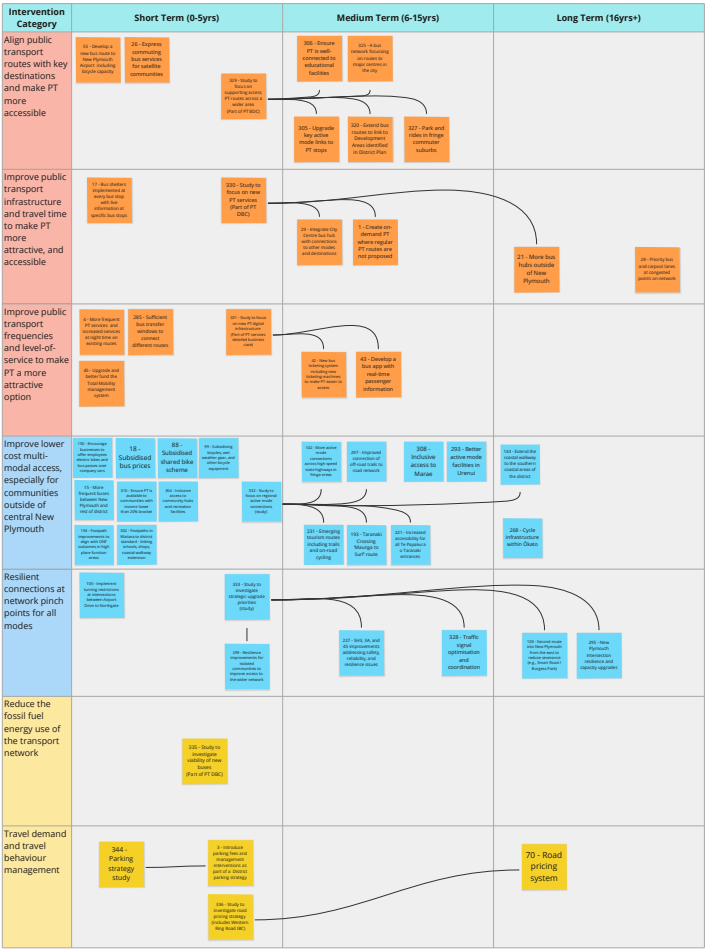
Intervention Categories

Intervention Category	Short Term (0-5yrs)	Medium Term (6-15yrs)	Long Term (16yrs+)
Reconfigure streets to align with One Network Framework outcomes and provide facilities for all modes	189 - Reprioritise Devon Street East - Mangorei Road intersection to encourage through traffic to use SH3 Northgate to Fitzroy 63 - Restrict access to buses, pedestrians, and cyclists only on Ariki Street between Egmont Street and Brougham Street 127 - Configure intersections with traffic calming elements on arterial routes to discourage residential road use 342 - Update Network Operating Framework 123 - Inglewood CBD upgrade to reduce severance 122 - Strandon Village place focussed treatments 258 - Elliot Street precinct development 337 - New Plymouth District ONF study (study) 140 - Utilise existing private and public carparks together to reduce on-street parking 301 - More mobility parking, better positioned and designed to standard	316 - Create more people focussed spaces in the district towns and centres	
Safe road connections at network pinch points			
Safety improvements for existing active mode facilities			
Complete the urban cycle network	318 - Upgrade active modes links to key amenities and existing bus stops for Development Areas identified in District Plan 340 - High LOS cycle facility engagement and design (Cycleway IBC, then follow-on DBCs)	154 - New Plymouth - Enthused and Confident Routes 156 - Bell Block - Enthused and Confident Routes 158 - Waitara - Enthused and Confident Routes 160 - Inglewood - Enthused and Confident Routes 155 - New Plymouth - Interested but Concerned Routes 157 - Bell Block - Interested but Concerned Routes 159 - Waitara - Interested but Concerned Routes 161 - Inglewood - Interested but Concerned Routes	
Improve attractiveness and accessibility of active mode facilities	131 - Promote the use of sustainable transport 132 - Bicycle skills, safety, and maintenance education programmes 279 - Safer school crossings with shelters 286 - Improved and increased seating in town centres 280 - More safe and secure bike parking in city centre - consider repurposing existing car parks 66 - Park and ride options for cycling on the Coastal Walkway which includes bike parking and hire 341 - Study to focus on new facilities (Cycleway IBC, then follow-on DBCs)	67 - Street lighting for key commuting active mode corridors to improve year round usage 315 - Improve lighting in urban centres around the district 65 - Maximise functional attractiveness of the Coastal Walkway 141 - Reduced severance between walkways (e.g., Coastal walkway, Huatoki, and Te Henui) 195 - Corbett Park footpath extension from Oākura 72 - Low traffic neighbourhood greenways for active modes 151 - Green links at Pukekura and Pūkākā for improved active mode access in New Plymouth 300 - Shared paths in New Plymouth along green corridors	
Increase population density in areas close to key urban centres and destinations	343 - Study to identify land use changes to support higher density residential areas	84 - Limit growth to existing urban areas in New Plymouth, southern growth areas, and Bell Block 5 - Facilitate high density residential developments along high frequency PT routes	313 - Medium and high density developments with urban amenities nearby 86 - Social housing that located in areas with good transport choices
Reduce the need to travel where car alternatives are less viable	78 - Encourage businesses to offer workplace travel options and work from home schemes		77 - 15 minute city concept - services, retail, and place making to avoid CBD travel for communities over 5km away 319 - Addition of local centre / mixed use in Development Areas identified in District Plan that are >2km away from basic amenities

Intervention Categorisation & Scheduling - CORE PREFERRED

New Plymouth District Council ITF Programme Business Case

Intervention Categories



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Intervention Categorisation & Scheduling - CORE PREFERRED

New Plymouth District Council ITF Programme Business Case

Intervention Categories

Intervention Category	Short Term (0-5yrs)	Medium Term (6-15yrs)	Long Term (16yrs+)
Reconfigure streets to align with One Network Framework outcomes and provide facilities for all modes	189 - Reprioritise Devon Street East - Mangorei Road intersection to encourage through traffic to use SH3 Northgate to Fitzroy 63 - Restrict access to buses, pedestrians, and cyclists only on Ariki Street between Egmont Street and Brougham Street 127 - Configure intersections with traffic calming elements on arterial routes to discourage residential road use 342 - Update Network Operating Framework 123 - Inglewood CBD upgrade to reduce severance 122 - Strandon Village place focussed treatments 258 - Elliot Street precinct development 337 - New Plymouth District ONF study (study) 140 - Utilise existing private and public carparks together to reduce on-street parking 301 - More mobility parking, better positioned and designed to standard	101 - Focus movements on one SH route through the centre of New Plymouth (e.g. SH45) and detune the other roads (e.g. SH44) for a more people focus 107 - Convert one-way SH system in New Plymouth to a single two-way SH to reduce severance	316 - Create more people focussed spaces in the district towns and centres
Safe road connections at network pinch points			
Safety improvements for existing active mode facilities	233 - David Street - Tukapa Street signalisation 212 - Convert Tukapa Street - Sanders Avenue roundabout to signalised intersection 173 - Intersection improvements for pedestrians and cyclists in New Plymouth 339 - District wide upgrade package investigation (study) 222 - Safer speeds following speed management principles (including engagement and implementation) 201 - Inglewood Windsor Walkway safety improvements 171 - Signalised crossing points at schools in New Plymouth 321 - Raised pedestrian crossings around the district	298 - Bridge upgrades 274 - Upgrade surfaces of all walking and bike paths in New Plymouth 174 - Midblock improvements for pedestrians and cyclists in New Plymouth	
Complete the urban cycle network	318 - Upgrade active modes links to key amenities and existing bus stops for Development Areas identified in District Plan 340 - High LOS cycle facility engagement and design (Cycleway IBC, then follow-on DBCs)	154 - New Plymouth - Enthused and Confident Routes 156 - Bell Block - Enthused and Confident Routes 158 - Waitara - Enthused and Confident Routes 160 - Inglewood - Enthused and Confident Routes	155 - New Plymouth - Interested but Concerned Routes 157 - Bell Block - Interested but Concerned Routes 159 - Waitara - Interested but Concerned Routes 161 - Inglewood - Interested but Concerned Routes
Improve attractiveness and accessibility of active mode facilities	131 - Promote the use of sustainable transport 132 - Bicycle skills, safety, and maintenance education programmes 279 - Safer school crossings with shelters 286 - Improved and increased seating in town centres 280 - More safe and secure bike parking in city centre - consider repurposing existing car parks 66 - Park and ride options for cycling on the Coastal Walkway which includes bike parking and hire 341 - Study to focus on new facilities (Cycleway IBC, then follow-on DBCs)	67 - Street lighting for key commuting active mode corridors to improve year round usage 315 - Improve lighting in urban centres around the district 65 - Maximise functional attractiveness of the Coastal Walkway 141 - Reduced severance between walkways (e.g., Coastal walkway, Huatoki, and Te Henui) 195 - Corbett Park footpath extension from Oākura 72 - Low traffic neighbourhood greenways for active modes 151 - Green links at Pukekura and Pūkākā for improved active mode access in New Plymouth	300 - Shared paths in New Plymouth along green corridors
Increase population density in areas close to key urban centres and destinations	343 - Study to identify land use changes to support higher density residential areas	84 - Limit growth to existing urban areas in New Plymouth, southern growth areas, and Bell Block 5 - Facilitate high density residential developments along high frequency PT routes	313 - Medium and high density developments with urban amenities nearby 86 - Social housing that located in areas with good transport choices
Reduce the need to travel where car alternatives are less viable	78 - Encourage businesses to offer workplace travel options and work from home schemes		77 - 15 minute city concept - services, retail, and place making to avoid CBD travel for communities over 5km away 319 - Addition of local centre / mixed use in Development Areas identified in District Plan that are >2km away from basic amenities

F

Appendix F – MCA Scoring

Long List MCA scoring

Options		Assumptions	Investment Objectives										Scores
			Investment Objective 1		Investment Objective 2		Investment Objective 3		Investment Objective 4		Investment Objective 5		
Option No.	Option Description		Improve public transport network access, reliability and travel times		Reduce private vehicle reliance/transport related emissions, and increase mode shift		Positive impact on local centres, network productivity and utilisation		Improve multi-modal access to key amenity locations		Improve the safety and attractiveness of active mode networks for all users (e.g. children)		
			Comments	Score	Comments	Score	Comments	Score	Comments	Score	Comments	Score	Base Score - No Weighting
1	**Do Minimum** - Projects with committed funding in the next 1-3 years		No change	0	Improved road connections increase VKT in the long term, but offset by some short term active mode projects	0	Limited short term change only	0	Some short term active mode and speed projects	0	Some short term active mode and speed projects but mainly in New Plymouth	0	0
2	**Balanced programme** - Growth as per the District Plan supported by a mix of resilience, safety and accessibility projects to cover all problem statements and all modes		Simple changes made to improve PT focussed on New Plymouth	2	Balanced programme with improvements to most alternative modes in New Plymouth but not integrated with land use	1	ONF, safety and resilience work to make improvements but in limited locations	2	ONF and safety work complete as well as active mode facilities and PT improvements	2	Active mode projects planned across the district	2	9
3	**Safer outcomes** - Improved safety for all modes to tackle the existing problems areas on the network in relation to Problem 1, Problem 3 and Problem 4		Improvements to infrastructure only	1	Safety improvements make active modes more attractive but limited new facilities or interventions. PT improved but not aligned with land use	1	ONF, safety and resilience work to make improvements but in limited locations	2	No new active mode facilities, safety improvements only and limited PT LOS improvements	1	Safety and attractiveness improvements but limited new facilities	1	6
4	**PT enabled urban growth** - Supporting increased urban densification beyond the proposed District Plan by integrating transport and land use in response to Problem 2 and Problem 3		All PT interventions explored	3	Development and PT routes aligned, with active mode improvements made as well	2	ONF and safety work to make improvements but in limited locations	2	New active mode facilities, limited safety improvements but improved PT options	2	New facilities but limited safety improvements	1	10

Options			Investment Objectives										Scores
			Investment Objective 1		Investment Objective 2		Investment Objective 3		Investment Objective 4		Investment Objective 5		
5	**Maximise VKT reduction** - Maximise VKT reduction in response to Problem 1, 2 and 4 by pulling all possible levers but with limited focus on safety and liveability		All PT interventions explored	3	Most PT, active mode and travel demand interventions explored as well as land use	3	No ONF or resilience work but less VKT	1	New active mode facilities, limited safety improvements but improved PT options	2	Active mode projects planned across the district but limited safety improvements	2	11
6	**Connected urban centres** - Increase accessibility across the District by creating local centres with good active mode connections alongside high efficiency transport corridors to New Plymouth CBD in response to all problems		All PT interventions explored	3	Most PT, active mode and travel demand interventions but no land use changes	2	ONF, safety and resilience work to make improvements the focus	3	ONF and safety work complete as well as active mode facilities with a focus on accessing local centres	3	Active mode projects planned across the district with all improvements explored	3	14
7	**CBD accessibility** - Focus on improved accessibility to the New Plymouth CBD from across the District for all modes in response to problems 1, 3, and 4		Better PT LOS and routes but limited new infrastructure	2	Most PT, active mode and travel demand interventions explored as well as land use	2	ONF work but limited resilience work	1	ONF and safety work complete as well as active mode facilities and PT improvements	2	Active mode and speed projects planned across the district with most improvements explored	3	10
8	**Liveability** - Improved liveability and accessibility of centres with a focus on people and active modes in response to problem 3 and 4		Better PT LOS and routes but limited new infrastructure	2	Most PT, active mode and travel demand interventions explored as well as land use	3	ONF work but limited resilience work	1	ONF and safety work complete as well as active mode facilities and PT improvements	2	Active mode and speed projects planned across the district with most improvements explored	3	11
9	**Resilience and freight** - An option that focuses on freight accessibility and the resilience and safety of the roading network as a reference option		No PT work proposed	0	Mostly vehicle focussed improvements with some ONF improvements but large freight VKT reduction	2	ONF, safety and resilience work to make improvements but in limited locations	2	No new facilities, safety improvements only	1	Limited active mode improvements proposed	0	5

Options		Assumptions	Critical Success Factors				Scores	Impacts and Opportunities								Scores	Total Scores
			Technical		Affordability			Te Ao Māori		Social and cultural impacts		Climate change mitigation		Climate change adaptation			
Option No.	Option Description		What are the technical or practical considerations that may prevent an option from achieving investment objectives, for example local site geography or existing contracts? What are the technical risks involved in developing or implementing this option?		Does the cost (capital, operational or maintenance) of this option fit within the likely funding available? What factors might affect the ability of the project owner to afford the cost to operate and maintain the option over its projected life?			What, if any, impacts are there on Te Ao Māori? This includes areas of significance for Māori, Māori land and Kaitiakitanga (recognition that the environment is a taonga).		What social or cultural impacts are associated with this option? Social or cultural impacts may include, for example, human health, impacts on community in relation to jobs, recreation, services and severance, impacts on farming and business operations. The environmental screen should be used to inform responses to some of these questions.		What is the impact of the alternative or option on climate change? What is the long-term carbon emissions impact of the alternative or option? How does the option's impact on light VKT compare with any sub-national light VKT targets (once available)? The environmental screen should be used to inform responses to some of these questions.		What is the impact of climate change on the alternative or option? Is the alternative or option exposed to physical climate change risk or other natural hazards over time? How effective is the option at reducing/mitigating the exposure to physical risks? The environmental screen should be used to inform responses to these questions.			
			Comments	Score	Comments	Score	Base Score - No Weighting	Comments	Score	Comments	Score	Comments	Score	Comments	Score	Base Score - No Weighting	Total Score - No Weighting
1	**Do Minimum** - Projects with committed funding in the next 1-3 years		Limited technical risks but more complex as time goes on	0	Projects already funded but longer term projects are more expensive	0	0	Do minimum is not as option as far as Ngā Kaitiaki is concerned.	0	Social benefits which include general road safety improvements and improved connectivity (coastal pathway) but over a limited time period	1	Same as Objective 2. Review further at short list stage.	0	No access resilience work proposed	0	1	1
2	**Balanced programme** - Growth as per the District Plan supported by a mix of resilience, safety and accessibility projects to cover all problem statements and all modes		Limited technical risks compared to do-minimum	-1	Moderate cost relative to do-minimum	-2	-3	Does not achieve enough positive outcomes compared to other programme options.	0	Increased social wellbeing by improving access and connectivity to services and businesses.	2	Same as Objective 2. Review further at short list stage.	1	Some access resilience work proposed but BAU may be a mal-adaptive option	0	3	9
3	**Safer outcomes** - Improved safety for all modes to tackle the existing problems areas on the network in relation to Problem 1, Problem 3 and Problem 4		Limited technical risks compared to do-minimum	-1	Moderate cost relative to do-minimum	-2	-3	Safer outcomes are necessary across all programme options.	2	All mode safety improvements resulting in health and social benefits including improved public transport use.	2	Same as Objective 2. Review further at short list stage.	1	Some access resilience work proposed	1	6	9
4	**PT enabled urban growth** - Supporting increased urban densification beyond the proposed District Plan by integrating transport and land use in response to Problem 2 and Problem 3		Additional PT and land use complexity	-2	Moderate cost relative to do-minimum	-2	-4	Important to consider.	1	PT enabled urban growth will have medium to long term social benefits, including improved access to jobs and services.	2	Same as Objective 2. Review further at short list stage.	2	No access resilience work proposed	0	5	11
5	**Maximise VKT reduction** - Maximise VKT reduction in response to Problem 1, 2 and 4 by pulling all possible levers but with limited focus on safety and liveability		Additional PT, travel demand management and land use complexity	-2	High cost relative to do-minimum due to number of interventions	-3	-5	People rely on private vehicles across the district. However, congestion is an issue, and utilising other modes is important.	2	Although maximised VKT reduction has potential benefits in terms of reduced vehicle omissions, the associated health benefits could be offset by poorly integrated land use planning with elements of unsafe design.	-1	Same as Objective 2. Review further at short list stage.	3	No access resilience work proposed but better travel options for adaptation	1	5	11
6	**Connected urban centres** - Increase accessibility across the District by creating local centres with good active mode connections alongside high efficiency transport corridors to New Plymouth CBD in response to all problems		Additional land use and travel demand management complexity	-2	High cost relative to do-minimum due to number of interventions	-3	-5	Social need to provide connectivity for people who are living in poverty and do not have access to private vehicles.	3	Well connected urban centres will result in improved accessibility to jobs and services, with health benefits resulting from good (safe) active mode options. This has long-term economic benefits for businesses.	3	Same as Objective 2. Review further at short list stage.	2	Some access resilience work proposed and better travel options for adaptation	2	10	19

Options			Critical Success Factors				Scores	Impacts and Opportunities								Scores	Total Scores
			Technical		Affordability			Te Ao Māori		Social and cultural impacts		Climate change mitigation		Climate change adaptation			
7	**CBD accessibility** - Focus on improved accessibility to the New Plymouth CBD from across the District for all modes in response to problems 1, 3, and 4		Additional land use and travel demand management complexity	-2	Moderate cost relative to do-minimum	-2	-4	Network should prioritise access to natural assets over the New Plymouth CBD.	0	Improved CBD accessibility will have at least moderate long term economic benefit for CBD based businesses. But the long term social benefits could be offset by the continued investment in all modes, rather than focussing on PT, which would have had higher social and health benefits	2	Same as Objective 2. Review further at short list stage.	2	No access resilience work proposed	0	4	10
8	**Liveability** - Improved liveability and accessibility of centres with a focus on people and active modes in response to problem 3 and 4		Additional land use and travel demand management complexity	-2	High cost relative to do-minimum due to number of interventions	-3	-5	Important to build liveable communities.	3	A focus on people and active modes will potentially improve uptake, leading to improved social connectivity and better health outcomes.	2	Same as Objective 2. Review further at short list stage.	3	No access resilience work proposed. If you can create liveability in small settings is a good adaptive measure and limits intensity of the services	3	11	17
9	**Resilience and freight** - An option that focuses on freight accessibility and the resilience and safety of the roading network as a reference option		Limited technical risks compared to do-minimum	-1	Moderate cost relative to do-minimum	-2	-3	Freight network should be improved to allow people to move more safely through the district.	2	Focussing on resilience and freight will inevitably have economic positive benefits, but will come at a social and environmental cost.	1	Same as Objective 2. Review further at short list stage.	2	Some access resilience work proposed. If there are different options then it is adaptive.	2	7	9

Short List MCA Scoring

Options		Assumptions	Investment Objectives										Scores
			Investment Objective 1		Investment Objective 2		Investment Objective 3		Investment Objective 4		Investment Objective 5		
Option No.	Option Description		Improve public transport network access, reliability and travel times		Reduce private vehicle reliance/transport related emissions, and increase mode shift		Positive impact on local centres, network productivity and utilisation		Improve multi-modal access to key amenity locations		Improve the safety and attractiveness of active mode networks for all users (e.g. children)		
			Comments	Score	Comments	Score	Comments	Score	Comments	Score	Comments	Score	Base Score - No Weighting
DM	**Do Minimum** - Projects with committed funding in the next 1-3 years		No change	**0**	Improved road connections increase VKT in the long term, but offset by some short term active mode projects	**0**	Limited short term change only	**0**	Some short term active mode and speed projects	**0**	Some short term active mode and speed projects but mainly in New Plymouth	**0**	**0**
0	**Common Interventions** - Smaller scale works with a strong case for change that are present in all 3 short list options		Small positive impact over the do minimum with regards to PT mode share	**1**	Small amount of mode shift and reduction in VKT per capita compared to the DM	**1**	Limited change in Freight travel time and freight usage of non-arterial roads. Some reduction in PT travel time.	**0**	Completes urban cycle network, improves attractiveness and accessibility of active mode facilities and reprioritises streets for people. No land use changes.	**1**	Completes urban cycle network, improves attractiveness and accessibility of active mode facilities, speed reductions on local streets,	**1**	**4**
3	**Reduce transport emissions** - Reduce vehicle emissions in response to Problem 1, 2 and 4 by pulling all possible levers but with limited focus on safety and liveability		Moderate positive impact over the do minimum with regards to PT mode share	**2**	Moderate amount of mode shift and reduction in VKT per capita compared to the DM	**2**	Limited change in Freight travel time and freight usage of non-arterial roads. Some reduction in PT travel time.	**2**	Option 0 + more population, employment, and density near centres.	**2**	Completes urban cycle network, improves attractiveness and accessibility of active mode facilities, speed reductions on local streets,	**3**	**11**
2	**Connected urban centres** - Increase accessibility across the District by creating local centres with good active mode connections alongside high efficiency transport corridors to New Plymouth CBD in response to all problems		Moderate positive impact over the do minimum with regards to PT mode share	**2**	Moderate amount of mode shift and reduction in VKT per capita compared to the DM	**2**	Moderate reduction in PT travel time but limited change in Freight travel time. Increased Freight use of non-arterial routes.	**1**	Option 0 + safety improvements for existing active mode facilities but no land use changes	**1**	As above + safety improvements for existing active mode facilities and detuning SH44	**3**	**9**
1	**Liveability** - Improved liveability and accessibility of centres with a focus on people and active modes in response to problem 3 and 4		Small positive impact over the do minimum with regards to PT mode share	**1**	Small amount of mode shift and reduction in VKT per capita compared to the DM	**1**	Limited change in Freight travel time and freight usage of non-arterial roads. Some reduction in PT travel time.	**0**	Option 0 + safety improvements for existing active mode facilities, increased population density near centres.	**2**	As above + safety improvements for existing active mode facilities and detuning SH44	**3**	**7**

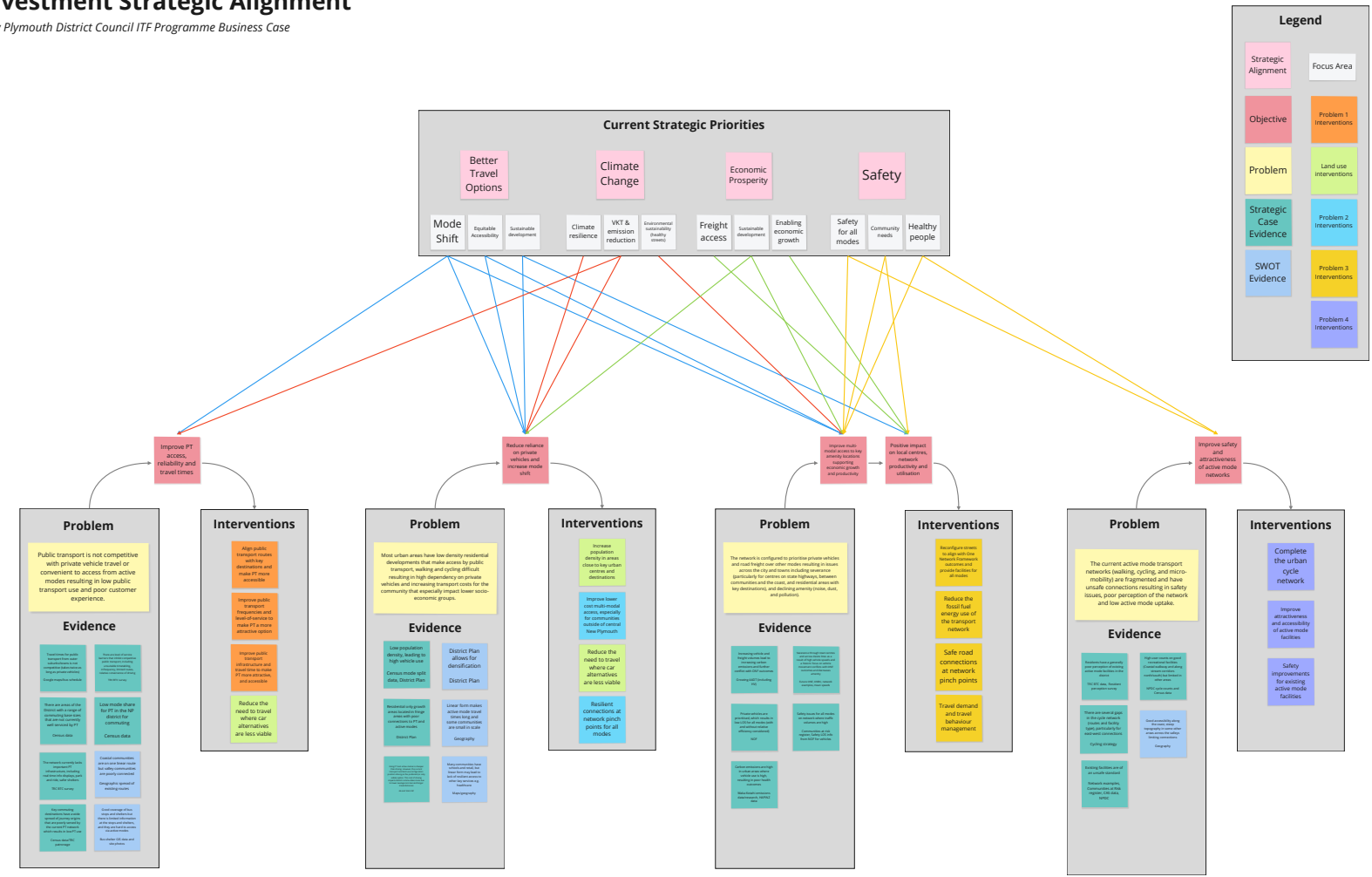
Options		Assumptions	Critical Success Factors						Scores	Impacts and Opportunities								Scores	Total Scores
			Technical		Affordability		Value for money			Te Ao Māori		Social and cultural impacts		Climate change mitigation		Climate change adaptation			
Option No.	Option Description		What are the technical or practical considerations that may prevent an option from achieving investment objectives, for example local site geography or existing contracts? What are the technical risks involved in developing or implementing this option?		Does the cost (capital, operational or maintenance) of this option fit within the likely funding available? What factors might affect the ability of the project owner to afford the cost to operate and maintain the option over its projected life?		Consideration of the balance between costs and benefits, usually through cost–benefit analysis.			What, if any, impacts are there on Te Ao Māori? This includes areas of significance for Māori, Māori land and Kaitiakitanga (recognition that the environment is a taonga).		What social or cultural impacts are associated with this option? Social or cultural impacts may include, for example, human health, impacts on community in relation to jobs, recreation, services and severance, impacts on farming and business operations. The environmental screen should be used to inform responses to some of these questions		What is the impact of the alternative or option on climate change? What is the long-term carbon emissions impact of the alternative or option? How does the option's impact on light VKT compare with any sub-national light VKT targets (once available)? The environmental screen should be used to		What is the impact of climate change on the alternative or option? Is the alternative or option exposed to physical climate change risk or other natural hazards over time? How effective is the option at reducing/mitigating the exposure to physical risks?			
			Comments	Score	Comments	Score	Comments	Score	Base Score - No Weighting	Comments	Score	Comments	Score	Comments	Score	Comments	Score	Base Score - No Weighting	Total Score - No Weighting
DM	**Do Minimum** - Projects with committed funding in the next 1-3 years		Limited technical risks but more complex as time goes on	0	Projects already funded but longer term projects are more expensive	0	Baseline for BCR assessment	0	0	Do minimum is not as option as far as Ngā Kaitiaki is concerned.	0	Social benefits which include general road safety improvements and improved connectivity (coastal pathway) but over a limited time period	0	Same as Objective 2. Review further at short list stage.	0	No access resilience work proposed	0	0	0
0	**Common Interventions** - Smaller scale works with a strong case for change that are present in all 3 short list options		PT and infrastructure treatments	-1	Total cost = $372m over next 40 years	-1	BCR = 2.6 (Low efficiency)	1	-1	Starts to see the desired changes but does not achieve enough positive outcomes compared to other programme options	1	Increased opportunities for PT use will likely result in an increase in PT uptake providing for improved social benefits.	2	Does not meet the 12% VKT reduction by 2035 (-1%)	0	More transport choice options	1	4	7
3	**Reduce transport emissions** - Reduce vehicle emissions in response to Problem 1, 2 and 4 by pulling all possible levers but with limited focus on safety and liveability		Additional PT, travel demand management, infrastructure and high land use complexity	-2	Total cost = $637m over next 40 years	-2	BCR = 3.4 (Medium efficiency)	2	-2	People rely on private vehicles across the district. Enabling more PT use supports whanau with no vehicle to access more opportunities as well as reduces congestion.	1	Although reducing vehicle emissions will provide environmental benefits, the limited focus on safety and liveability may not result in social wellbeing or health benefits.	0	Meets the 12% VKT reductiomn by 2035 (12%)	3	No access resilience work proposed. But creating land use changes is a good adaptive measure and limits intensity of the services	2	6	15
2	**Connected urban centres** - Increase accessibility across the District by creating local centres with good active mode connections alongside high efficiency transport corridors to New Plymouth CBD in response to all problems		Additional PT, travel demand management and infrastructure	-1	Total cost = $871m over next 40 years	-3	BCR = 2.5 (Low efficiency)	1	-3	Improving access in and to places increases the type of opportunities available for whanau to participate.	2	Well connected urban centres will result in improved accessibility to jobs and services, with health benefits resulting from good (safe) active mode options. This has long-term economic benefits for businesses.	3	Meets the 12% VKT reductiomn by 2035 (12%)	3	Some access resilience work proposed and better travel options for adaptation	2	10	16
1	**Liveability** - Improved liveability and accessibility of centres with a focus on people and active modes in response to problem 3 and 4		Additional PT, travel demand management, infrastructure, land purchase and land use complexity	-2	Total cost = $614m over next 40 years	-2	BCR = 2.3 (Low efficiency)	1	-3	Improving access in and to places increases the type of opportunities available for whanau to participate and be connected without requiring a private vehicle. Safer outcomes supports whanau to engage with place.	3	A focus on people and active modes will potentially improve uptake, leading to improved social connectivity and better health and safety outcomes.	2	Does not meet the 12% VKT reduction by 2035 (-1%)	0	No access resilience work proposed. But creating liveability in small settings with land use changes is a good adaptive measure and limits intensity of the services	2	7	11

G

Appendix G – Strategic Alignment Diagram

Investment Strategic Alignment

New Plymouth District Council ITF Programme Business Case



H

Appendix H – BCR Assessment Methodology

File Note

By:	Michael Sewell	**Date:**	01 November 2024
Subject:	NPDC Integrated Transport Framework Programme Business Case - BCR assessment methodology	**Our Ref:**	3823474

1 Introduction

This technical note documents the methodology and process for the transport efficiency (benefit cost ratio, BCR) assessment for the New Plymouth District Council (NPDC) Integrated Transport Framework (ITF) Programme Business Case (PBC). This methodology predominantly uses modelling outputs from the Ngāmotu Strategic Transport Model (Ngāmotu STM). The transport benefits to be included in the assessment are shown in **Table 1-1**.

Table 1-1: Assessed benefits and their inputs and main drivers

Benefit	Key inputs to benefits calculation	Main Drivers
Traffic travel time (time, CRV and reliability)	• Modelled travel times on the road network • Modelled time spent in congestion at intersections and on links on the road network	• Demand for road travel and travel patterns • Intersection and link capacities
Vehicle Operating Cost (VOC)	• Modelled travel distance travelled and speeds on the road network • Modelled time spent in congestion on the road network	• Fleet composition • Demand for road travel and travel patterns • Intersection and link capacities
Public Transport (PT) travel time and reliability	• Modelled travel times, walking times, and interchange times on the PT network • Fare prices	• PT patronage • In-vehicle travel times • Service frequency and coverage • Bus stop and station quality
Crash cost savings	• Speed on road network • Modelled traffic volumes • Estimated crash reduction factors from Crash Compendium and Safe System Intervention toolkit	• Speed limit changes on road network • Link facility types on the road network • Demand for road travel and travel patterns
Cycling perceived travel time and health	• Modelled travel time on the cycle network • Modelled cycle kilometres travelled on the cycle network	• Demand for cycling and number of new users
Emissions damage	• Modelled vehicle kilometres travelled • Vehicle speeds	• Fleet composition • Demand for road travel and travel patterns

File Note

2 Traffic Travel Time and Reliability Benefit

The traffic benefits are calculated using the Variable Trip Matrix (VTM) method as described in the Waka Kotahi Monetised Benefits and Costs Manual[1] (MBCM). The VTM benefit formula is given below:

$$Bij = (R_{ij}^{DM} T_{ij}^{DM} - R_{ij}^{OPT} T_{ij}^{OPT}) + ½ (U_{ij}^{DM} + U_{ij}^{OPT}) x (T_{ij}^{OPT} - T_{ij}^{DM})$$

Where: T_{DM} = Number of trips in the Do Minimum

T_{OPT} = Number of trips in the Option

U_{DM} = User cost of travel in the Do Minimum

U_{OPT} = User cost of travel in the Option

R_{DM} = Resource cost of travel in the Do Minimum

R_{OPT} = Resource cost of travel in the Option

2.1 Travel Times Costs

For this assessment, the three considered components of travel time are:

- Base travel time
- Congested travel time (denoted as 'CRV' in the MBCM)
- Travel time reliability.

The base travel time simply applies the Value of Travel Time Saving (VTTS) unit value to the total travel times, where the CRV value is only applied on sections of road deemed congested. CRV benefits are calculated in accordance with the MBCM as follows:

- CRV only applies to links with a Volume/Capacity ratio greater than 70%,
- All stopped (intersection) delay is included as congested; and,
- Rural roads used the Percent Time Delayed (PTD) method. The PTD is estimated from the V/C ratios by adopting values from Table 17 of the MBCM, assuming generally level terrain, and typically 50% of overtaking sight distance less than 400m.

The traffic reliability benefits are conservatively estimated as 5% of the total travel time benefits for traffic. Traffic reliability benefits for previous roading projects range from 5-10% of base travel time saving benefits. These include:

- SH20 extension western ring project (EMME) used full procedure and estimated 8.8%,
- Tauranga eastern link project (Voyager) used full procedure and estimated 6%; and,
- SH20A Kirkbride interchange project (Saturn) used an alternative procedure and estimated 10%.

2.2 Values of Travel Time

In undertaking the consumer surplus benefit calculations required when a VTM approach is used, two cost items are required, namely Resource costs (costs to the national economy) and User costs (costs perceived by the users).

[1] https://www.nzta.govt.nz/assets/resources/monetised-benefits-and-costs-manual/Monetised-benefits-and-costs-manual.pdf

File Note

For this evaluation, composite resource time values for light and heavy vehicles are calculated using the travel time values provided in Table 14 and 15 of the MBCM and the urban arterial traffic composition provided in Table A47 of the MBCM. The values are separated by light and heavy vehicles to match the vehicles classes in the traffic modelling. Only the urban arterial composition values are used for the following reasons:

- Most of the Ngāmotu STM modelled area is an urban environment,
- Most treatments and interventions considered in the ITF relate to urban roads; and,
- The urban arterial composite values are like the 'urban other'.

The resulting base time and Congested (CRV) values for each class and each weekday period are shown in **Table 2-1**. All other periods are represented by the weekday interpeak models, in which the different time values for those periods are represented in the annualisation factors.

Table 2-1 – Composite Resource Time Values

Period	Base Time		Congested Time (CRV)	
	Light Vehicles	Heavy Vehicles	Light Vehicles	Heavy Vehicles
Weekday AM	$33.50	$73.90	$24.50	$30.34
Weekday interpeak	$35.88	$73.86	$24.86	$30.23
Weekday PM	$33.52	$70.13	$24.12	$30.34

User values are derived by applying factors of 1.15 to non-work trip purpose and 1.0 to work trip purpose to the Resource values (Table A17 of the MBCM).

3 Vehicle Operating Costs

For this assessment, the three considered components of VOC are:

- Base running costs,
- Intersection idling costs; and,
- Additional running costs due to road congestion.

3.1 Base running costs

Base VOC (in cents/km) is calculated for each link based on the average travel speed and vehicle type by adopting the regression formula from Table 22 of the MBCM. An average gradient of 0% is conservatively estimated for this formula, as the modelled area is assumed to be a mixture of flat and slightly undulating terrain. This regression formula is therefore defined as:

$$VOC_B = a + c.\ln(S) + e.[\ln(S)]^2 + h.[\ln(S)]^3$$

Where: S = speed in km/hr

a,c,e,h = coefficients as per **Table 3-1** below.

The regression coefficients for light vehicles are estimated as a weighted average of those provided for passenger cars (PC) and light commercial vehicles (LCV). Similarly, the regression coefficients for

medium (MCV) and heavy commercial vehicles (HCV) are estimated as a weighted average of those provided for MCV, HCV-I and HCV-II (see **Table 3-1**).

Table 3-1: Coefficients for Base VOC Models

Coefficient	Light Vehicles	MCV / HCV
a	22.19126	-57.1369
c	29.08347	197.344
e	-14.17163	-69.944
h	1.726842	7.67786

3.2 Intersection idling costs

VOC due to bottleneck delay is applied to all intersections that experience delays at a rate of 1.89 c/min for light vehicles and 3.96 c/min for medium and heavy class vehicles. These are estimated as weighted averages of the VOC values provided in Table 27 of the MBCM.

3.3 Additional running costs due to road congestion

Additional VOC due to congestion (in cents/km) is calculated by adopting the regression formula from Table 23 of the MBCM and using the coefficients provided in Table 24 of the MBCM. This regression formula is defined as:

VOC_{cong} = min {a, exp(b + c*VC) – exp(b)}

Where: VC = Volume to Capacity Ratio, and

a,b,c = coefficients as per **Table 3-2** below.

Table 3-2 : Coefficients for Congested VOC Models

Coefficient	Urban	Rural 2-Lane Highway		Motorway
		Strategic	Other	
a	9.211	7.704	6.979	7.084
b	-1.904	-1.235	-1.563	-5.931
c	4.327	3.210	3.408	7.866

4 Public Transport Travel Time and Reliability Benefit

PT travel time benefits are assessed directly from the demand and generalised cost matrices from the Ngāmotu STM, using the benefit formula from Appendix A of the MBCM defined as:

Bij = [½ (T_{DM} + T_{OPT}) (U_{DM} – U_{OPT})] (perceived user benefits)

+ [(T_{DM} PTR_{DM} – T_{OPT} PTR_{OPT}) (change in public transport supply resource cost)

+ [T_{OPT} (OU_{OPT} – OR_{OPT}) – T_{DM} (OU_{DM} – OR_{DM})] (change in other resource costs)

+ [T_{OPT} F_{OPT} – T_{DM} F_{DM}] (fare resource correction)

Where, for each ij pair:

T = number of trips.

U = perceived cost/trip.

F = fare/trip (as included in the perceived cost of travel).

OU = other perceived user cost/trip (eg generalised cost of travel time).

PTR = resource cost of providing public transport/trip.

OR = other resource travel costs (eg travel time and environment)/trip.

Subscripts:

DM = do-minimum, OPT = option, U = F + OU and R = PTR + OR.

In the above benefit formula, the second term (change in operating costs) is omitted as they are directly treated as operating costs (i.e., as a negative cost in the evaluation).

The PT reliability benefits are conservatively estimated as 50% of the total travel time benefits for PT. The reasoning for this is as follows:

- The MBCM PT reliability benefit calculation methodology was developed particularly for single corridors. For a citywide PT study with several services, like the NPDC ITF PBC, this methodology is therefore considered unsuitable. In addition, new PT services introduced in the short list programme options do not have existing travel time information.
- The nature of the MBCM methodologies contributes much larger PT reliability benefits compared to general traffic reliability benefits. The PT methodology applies an 'equivalent time to minute-late ratio' (EL) multiplier factor to AML values. The EL value is 4.8 for buses which significantly increases the PT reliability benefits.
- For the Eastern Busway project in Auckland, the PT reliability benefits are 100% for AM and PM peaks and 75% for Interpeak, following the MBCM procedure.

Hence, we consider a 50% PT reliability benefit reasonable for the context of New Plymouth and the nature of a high-level PBC study.

5 Crash Reduction Benefit

For this assessment, crash reduction benefits are estimated through two approaches:

- Generalised changes in mid-block crash rates due to changes in modelled traffic volumes, speed limits, and specific safety interventions
- Changes in crash rates at specific intersections and crossing points due to safety interventions.

5.1 Changes in midblock crashes

It is assumed that the following high-level changes to the network from the PBC programme options will produce the most significant generalised mid-block crash reductions:

- Changes in traffic volumes across the modelled network
- Speed limit changes across the modelled network
- Safety interventions on high-speed state highway links in the modelled network.

File Note

The approach to estimating generalised changes in mid-block crash rates is based on crash prediction models from the Waka Kotahi Crash Compendium[2]. These models estimate the annual number of crashes by road category and traffic volume and have been mapped to the specific link types within the Ngāmotu STM using the Waka Kotahi One Network Road Classification (ONRC) as a basis. The total annual crash costs are then calculated using the values provided in Table A36 of the MBCM. The crash prediction model equations are given below.

For urban roads (≤70km/h speed limit) and multi-lane high speed roads (including motorways):

$$(Injury\ crashes) = b_0 \times Q^{b1} \times L$$

For rural roads (≥80km/h speed limit):

$$(Injury\ crashes) = b_0 \times Q \times L \times 365 / 10^8$$

Where:

b_0 and b_1 = model parameters.

Q = annual average daily two-way traffic volume.

L = length (kilometres).

These crash costs are also scaled using the ratio of the crash costs from the 2018 baseline crash prediction models to the crash costs estimated using the Waka Kotahi crash cost simplified procedure (Method A MBCM) on five years (2018-2022) of Crash Analysis System (CAS) non-intersection crash data that covers the model area.

The coefficient values used in the equations are shown in **Table 5-1** and their mapping to specific link types within the Ngāmotu STM are shown in **Table 5-2**.

Table 5-1: Coefficients used for crash prediction models

Coefficient Set	Road Category Equation	Mid-block Road Type	b_0	b_1
1	Urban	Access (Local)	2.19×10^{-4}	0.98
2	Urban	Primary and Secondary Collectors	2.99×10^{-5}	1.08
3	Urban	National and Regional Strategic Arterial	1.16×10^{-4}	0.88
4	Multi-lane high speed	Motorway and four-lane divided roads	2.56×10^{-7}	1.45
5	Rural	Regional Strategic	23	N/A

When determining the coefficients to use from the Waka Kotahi Crash Compendium in **Table 5-1**, the following simplifying assumptions are made:

- All urban links in the model are assumed to have a land-use category of ‘other’.
- All rural links in the model are assumed to have a horizontal alignment of ‘curved’ (50-150 degrees/km) and no significant variations in seal width.

[2] https://www.nzta.govt.nz/assets/resources/monetised-benefits-and-costs-manual/crash-risk-factors-guidelines-compendium.pdf

Table 5-2: Ngāmotu STM modelled link types

Type	Name	Capacity	Free Flow Speed	Classification	Coefficient Set Used
2	Shopping Street	600	30	Shopping	2
4	Local Street	800	40	Local	1
5	Collector - High Friction	1000	45	Collector	2
6	Collector - Low Friction	1200	50	Collector	2
7	Secondary Arterial - High Friction	1200	50	Secondary Arterial	3
8	Secondary Arterial - Low Friction	1300	50-60	Secondary Arterial	3
9	Primary Arterial High Friction	1400	45	Primary Arterial	3
10	Primary Arterial Low Friction	1400	50/60	Primary Arterial	3
12	Rural - Restricted	1400	80	Rural	5
13	Rural - Restricted	1400	100	Rural	5
14	Expressway 100	1800	100	Motorway	4
15	Expressway 80	1800	80	Motorway	4
16	Ramps	1800	70	Motorway	4

For all links with speed limit changes, the crash reductions are estimated using the modified Nilsson's power model equation from the Waka Kotahi MegaMaps user guide as a basis[3]. The equation is adapted to estimate reductions across all injury crashes in the modelled area through the change in modelled free flow speed and is defined as:

$$(Injury\ crashes_{Final}) = (Injury\ crashes_{Initial}) \times [\ (Free\ flow\ speed_{Final}) / (Free\ flow\ speed_{Initial})\ ]^2$$

The reduction estimated by this equation is applied to the crash prediction model outputs for all relevant links with adjusted free flow speeds[4].

For high speed (≥70km/h speed limit) state highway links, it is estimated that the high-level safety interventions will result in a 15% reduction in all injury crashes. This is estimated from the DSI savings of roadside safety barriers at high-risk locations from the Safe System Intervention (SSI) toolkit[5]. This reduction is applied to the crash prediction model outputs for all relevant links.

5.2 Changes in intersection and crossing point crashes

At key intersections and crossing points where high-level safety interventions are considered, crash cost savings are estimated using the Waka Kotahi crash cost simplified procedure (Method A MBCM). Five years (2018-2022) of CAS crash data are used in this procedure to establish the baseline of crashes at the locations. Reductions in crashes at these locations from the interventions are estimated from DSI

[3] https://www.nzta.govt.nz/assets/Safety/docs/speed-management-resources/megamaps-user-guide.pdf

[4] The modelled links affected by a speed limit change are assumed to be Type 4 'Local', with the speed limit changing from 50km/h to 30km/h and the modelled free flow speed changing from 40km/h to 30km/h.

[5] https://www.nzta.govt.nz/assets/resources/standard-safety-intervention-toolkit/standard-safety-intervention-toolkit.pdf

File Note

savings specified in the SSI toolkit and crash reduction factors (CRF) from the Crash Compendium. The key locations considered, and the respective crash reductions are shown in **Table 5-3**.

Table 5-3: Method A crash reduction analysis key locations and estimated reductions

Area ID	High-level Outcome	Key Locations Considered	Estimated Crash Reductions	Reasoning
1	Intersection safety improvements on SH3 between Northgate and Airport Dr.	Intersections (50m radius): • SH3 / Devon St East • SH3 / Katere Rd • SH3 / Mangati Rd • SH3 / Wills Rd	20% reduction all injury crashes	Traffic calming CRF from Table 34 of Crash Compendium
2	Port Taranaki vehicle safety and accessibility improvements.	Intersections (50m radius): • SH44 / Ngāmotu Rd • SH44 / Morely St • SH45 / Beach Rd	60% reduction DSI crashes 30% reduction all other injury crashes	Roundabout, raised safety platform, and signalised intersection DSI reductions from SSI toolkit.
3	Safety improvements at higher risk intersections.	Top 16 intersections with most crashes over 2018-2022 outside of other intersections specified in this table (50m radius).	40% reduction DSI crashes 20% reduction all other injury crashes	Raised safety platform DSI reductions from SSI toolkit.
4	Safer pedestrian crossing points at key school locations.	Six existing zebra crossing points (50m radius): • Bell Block Ct at Bell Block School • Brois St at Woodleigh School • Tukapa St at Francis Douglas Memorial College • Coronation Ave at Highlands School • Mangorei Rd at Merilands School • McLean St at Waitara Central School	40% reduction DSI crashes 20% reduction all other injury crashes	Raised safety platform DSI reductions from SSI toolkit.
5	Safer pedestrian crossing points across the district.	12 new crossing points (50m radius): • Devon St W / Belt Rd • SH3 (Matai St) / Kelly St • Cumberland St / Arawa St • Connett Rd / Mangati walkway • Lawry St / Mangaotuku walkway • Lemon St west of Gover St • Marama Cres to Maui Pl reserve • Centennial Dr / Rangitake Dr	20% reduction DSI crashes 10% reduction all other injury crashes	Mid-block raised pedestrian crossing DSI reductions from SSI toolkit.

Area ID	High-level Outcome	Key Locations Considered	Estimated Crash Reductions	Reasoning
		• 4 others TBC (assume 50% increase in benefits from defined crossing points)		
6	Intersection safety improvements on Tukapa St	Intersections (50m radius): • Tukapa St / David St • Tukapa St / Sanders Ave	55% reduction DSI crashes 27.5% reduction all other injury crashes	Signalised intersection DSI reductions from SSI toolkit.

6 Cycling Perceived Travel Time and Health Benefits

For this assessment, the two considered cycle benefits are:

- Perceived travel time
- Physical health benefits for new users
- Safety benefits

6.1 Perceived travel time

Perceived travel time benefits are calculated from the travel time and cycle demand matrices of the Ngāmotu STM. Like the traffic benefit calculation, the VTM approach is adopted to assess the cycle benefit using the formula provided in **Section 0.**

The cycle value of time (VOT) of $21.85/hr is used for the analysis. This is estimated as a weighted average of the values provided in Table 14 of the MBCM, assuming a 15% : 15% : 70% split of trips to work, trips to school, and other trip purposes respectively. This is based on the split of car trip purposes across all periods provided in Table A50 of the MBCM. The Ngāmotu STM is an average weekday model, so cycling benefits related to recreational trips are excluded. Therefore, the cycling benefits estimated by the Ngāmotu STM are expected to be conservative.

6.2 Physical health benefits for new users

Cyclist health benefits are calculated using the difference in in cycle kilometres travelled new cycle trips on the network and the values provided in Table 7 of the MBCM. The number of new cyclists on the network is estimated as half the number of new daily cycle trips. The health benefit value per km travelled uses a weighted average of the standard cyclist benefit ($4.90) and the e-bike benefit ($2.50) based on the forecast year assumptions of 45% e-bikes in 2035 and 75% in 2053.

A capping approach for the health benefits was developed, which involved estimating the frequency distribution of new users, so that the capping would only apply to the high-frequency users who exceed the cap. The MBCM caps annual health benefits at $6,200 per new cyclist and $4,600 per new e-bike user.

6.3 Safety benefits

Cyclist safety benefits for are obtained by multiplying the difference in cycle kilometres travelled on the network with the safety factor of $0.05 per kilometre as obtained from the Waka Kotahi simplified procedure 11 (SP11)[6].

7 Emission Benefit

The external impacts of air emissions are costed using the damage cost approach. This assigns a cost to each tonne of pollutant emitted to reflect the damage done to the surrounding environment, including people and ecosystems. Emissions are calculated for each assessment scenario and then multiplied by the costs per tonne so that the likely impacts can be compared.

Emissions for each scenario are calculated using rates from the Waka Kotahi Vehicle Emissions Prediction Model (VEPM) 6.3. The emissions are then converted to monetary values using urban damage costs from Table 9 and Table 11 of the MBCM, as shown in **Table 7-1**.

Table 7-1: Emission Damage Costs

Pollutant	Emission Damage Costs in $/tonne
$PM_{2.5}$	$853,824
NOx	$865,797
CO	$4.9
Volatile Organic Compounds	$1,545
SO_2	$39,334
CO_2-e (middle values), 2035	$186
CO_2-e (middle values), 2053	$303

8 Update Factors

Table 8-1 summarises the update factors used to adjust the benefit values for:

- The short list to the base date, 2022; and,
- The preferred option to the base date, 2023.

Table 8-1: Update Factors

Variables	Base Date	Short List	Preferred Option
Travel Time Cost Savings	2021	1.03	1.08
Vehicle Operating Cost Savings	2015	1.43	1.35
Accident Cost Savings	2021	1.06	1.14

[6] The safety factor is not directly referenced in the MBCM but is present in the SP11 calculation worksheet.

Variables	Base Date	Short List	Preferred Option
Cycle Travel Time Savings	2021	1.03	1.08
Emission Savings	2021	1.06	1.14
CO_2-e Savings	2022	1.00	1.00

9 Benefit Expansion Factors

9.1 Annualisation from modelled periods for traffic benefits

Annual benefits are estimated through weighted factoring of the three modelled weekday periods (AM, Inter-peak and PM). The AM and PM peak models are used to represent the morning and evening peaks, while the inter-peak model is used to represent all other periods.

Average weekday and weekend traffic counts are processed for the whole region to develop the expansion factors in New Plymouth. The resulting annualisation factors are summarised in

Table 9-1.

Table 9-1: Annualisation Factors for Traffic

Period	Model Used	Equivalent Hours per day	Days per year	Factors
Weekday AM	AM	2.5	245	612.5
Weekday PM	PM	2.5	245	612.5
Weekday Interpeak/Offpeak	IP	8.63	245	2114.4
Weekend/holiday	IP	13.4	120	1608

9.2 Annualisation from modelled periods for PT benefits

PT annualisation factors are estimated from the 2022 PT transaction data. The resulting annualisation factors are summarised in **Table 9-2.**

Table 9-2: Annualisation Factors for PT

Period	Model Used	Equivalent Hours per day	Days per year	Factors
Weekday AM	AM	2	245	490
Weekday PM	PM	2.25	245	551.3
Weekday Interpeak/Offpeak	IP	7.47	245	1830.15
Weekend/holiday	IP	0.17	60	10.12

10 Programme Option Costs

Programme option costs are estimated by the Beca costing team and NPDC. Details on the costing methodology and calculations are given in the PBC report.

When estimating operational costs of interventions related to public transport services at the preferred option stage (e.g., increased bus frequencies, new bus routes etc.), it is assumed that 40% of these costs are subsidised by farebox recovery.

11 Sensitivity Testing

Economic sensitivity testing was conducted on the expected programme costs, significant benefit sources, and discount rate to better understand the efficiency of the short list programme options. The economic sensitivity tests are described in **Table 11-1** and the combinations and results of the sensitivity testing are given in **Table 11-2**.

Table 11-1: Short list economic analysis sensitivity tests

Category	Sensitivity test	Description
Discounting factor	3% and 6%	Standard sensitivity test on 4% discounting factor as recommended in the Waka Kotahi MBCM.
Programme option costs	P5 and P95 costs	Variation on expected (P50) costs as defined by the Beca costing team. Based on the high-level nature of the costing process. For exact cost values see the supplementary cost estimation report.
Significant benefit sources	-20% and +20% for crash reduction benefits estimated from CAS data	Crash reductions used in this analysis are from SSI toolkit and crash compendium estimates, which are based on nationwide and some international evidence. Exact impact for the New Plymouth context is not well known, and deviation from the estimated reduction is likely.
	-30% and +10% for: • Crash reduction benefits estimated from changes in VKT • Public transport benefits (including travel time and reliability) • Cycling benefits (including travel time and health benefits to users)	Modelled VKT reductions and mode shift for programme options are ambitious, with risks likely to be more on the downside.

File Note

Table 11-2: Sensitivity testing combinations and results

Discount Factor	Programme Option Costs	Significant Benefit Sources	Programme option				
			Common Interventions	Liveability	Connected urban centres	Reduce transport emissions hybrid	Core preferred programme
4%	P50	No change	2.6	2.3	2.5	3.4	6.8
3%	P5	+	3.7	3.4	3.7	4.9	10.2
3%	P5	-	2.4	2.4	2.5	3.4	7.0
3%	P95	+	2.4	1.9	2.1	2.9	5.8
3%	P95	-	1.6	1.4	1.4	2.0	4.0
6%	P5	+	2.8	2.6	3.0	3.8	7.8
6%	P5	-	1.8	1.8	2.0	2.5	5.3
6%	P95	+	1.7	1.5	1.7	2.2	4.4
6%	P95	-	1.1	1.0	1.1	1.5	3.0

Michael Sewell

Appendix I – Public Consultation and Stakeholder Feedback Summary

RESEARCH FIRST

New Plymouth District Council

PUBLIC CONSULTATION ON INTEGRATED TRANSPORT AND CYCLEWAY INFRASTRUCTURE

Research report | September 2023

Contents

Section 1

Key findings

	KEY PRIORITIES
	Most prioritised A safe and connected district.
	Least prioritised Vibrant local areas with less need to travel.
	IMPROVE PUBLIC TRANSPORT
	Most prioritised Increasing the frequency of public transport and infrastructure.
	Least prioritised Increasing the parking fees.
	IMPROVE ACCESS TO KEY AMENITIES
	Most prioritised Connecting public transport to key destinations and a separate route for freight.
	Least prioritised Increasing the road capacity.
	REDUCE RELIANCE ON PRIVATE VEHICLES
	Most prioritised Increasing accessibility around the district and shifting road freight to other modes.
	Least prioritised Reducing transport emissions and using alternative fuel.
	USE MORE OF ACTIVE TRAVEL NETWORK (WALKING AND CYCLING)
	Most prioritised Improving existing road connections, bridges and raised crossings.
	Least prioritised Reducing the road speeds.
	RESIDENTS ARE DIVIDED OVER THEIR SUPPORT FOR FUTURE ROAD UPGRADES
	47% supportive ***25%*** unsupportive ***28%*** neutral
	ADDITIONAL FEEDBACK ON INTEGRATED TRANSPORT FRAMEWORK
	Diverse feedback was received about cycle and walking initiatives. Residents do not support reducing car parks or charging more parking fee.

Section 2

About this research

Research context

New Plymouth District Council (NPDC) sought to engage the community in a public consultation, seeking feedback about five 'themes' from the Transport Blueprint. Feedback from residents of the district has been sought on NPDC's specific plans around the following five themes:

- Priority areas
- Public transport initiatives
- Key amenities initiatives
- Public vehicle initiatives
- Active travel network initiatives

Research design

Resident feedback was sought via a six-week survey campaign commencing on 18th August 2023. A mixed-method quantitative consultation process was designed to ensure breadth of public engagement:

1. A survey representative of the residents of the district aged 18 years and older on age, gender, ethnicity, and location.
2. An open submission via a digital public access open link survey.

THE REPRESENTATIVE SURVEY

This was administered in a short survey conducted online between 23 August and 12 September 2023.

A total of 500 responses were collected. Overall, the representative survey results have a margin of error of +/- 4.4 percent at 95 percent confidence level.

THE OPEN PUBLIC SUBMISSION SURVEY

A digital link survey was open to the public and shared through community and Council communications, media and the NPDC's People's Panel. he survey was open for public consultation between 18 August to 2 September 2023.

The table below details survey completions by different distribution channels.

Table 1. Survey responses by distribution channels

Survey responses	Responses
Representative survey	500
Open submissions	305
Total responses	805

Sample Composition: Representative and Open submissions

The achieved sample was representative of the New Plymouth District regarding age, gender, location, and ethnicity in accordance with Statistics NZ census 2018 data.

The table below details the sample composition as observed for the representative survey and the open submission survey. Any significant differences observed across the distribution type are highlighted.

For this report, the representative survey will provide the primary reference point for findings as this most accurately represents the voice of the residents of the district.

Table 2: Sample composition.

		Representative survey	Open submission	Number of respondents (Representative sample)	Number of respondents (Open sample)
Ward	New Plymouth City	63%	70%	314	212
	Puketapu + Bell Block + Waitara	16%	13%	80	39
	Clifton + Inglewood	17%	12%	83	35
	Kaitake	5%	6%	23	17
Age	18-44	35%	36%	175	109
	45-64	39%	41%	194	125
	65+	25%	21%	127	65
	Prefer not to say	1%	2%	4	6
Gender	Male	46%	42%	231	129
	Female	53%	54%	263	164
	Another gender	0%	1%	2	2
	Prefer not to say	1% ↓	3% ↑	4	10
Ethnicity	NZ European	84%	87%	420	266
	Māori	16% ↑	8% ↓	78	24
	Pacific Peoples	1%	0%	4	0
	Asian	5% ↑	2% ↓	25	5
	Middle Eastern / Latin American / African	0%	1%	1	4
	Other ethnicity	3%	4%	13	11
	Other European	2% ↓	5% ↑	11	16
Total respondents				500	305

Data analysis

Respondents were asked to select their top 3 priorities under each theme (1 being the highest priority). The cumulative proportion of respondents that ranked the initiative amongst their top three is provided in the tables.

Any significant differences as observed in survey responses across demographics or survey methods are highlighted in each section, and the corresponding data tables are shared in Appendix A.

THE FOLLOWING POINTS BE NOTED:

- Grouped percentages may not add up to 100% due to rounding.
- The results were tested for a significant difference across survey types and demographics at a 95% confidence level.
    - XX↑ denotes significantly higher differences in responses across survey types and/or demographics.
    - XX% ↓denotes significantly lower differences in responses across survey types and/or demographics.

Detailed findings

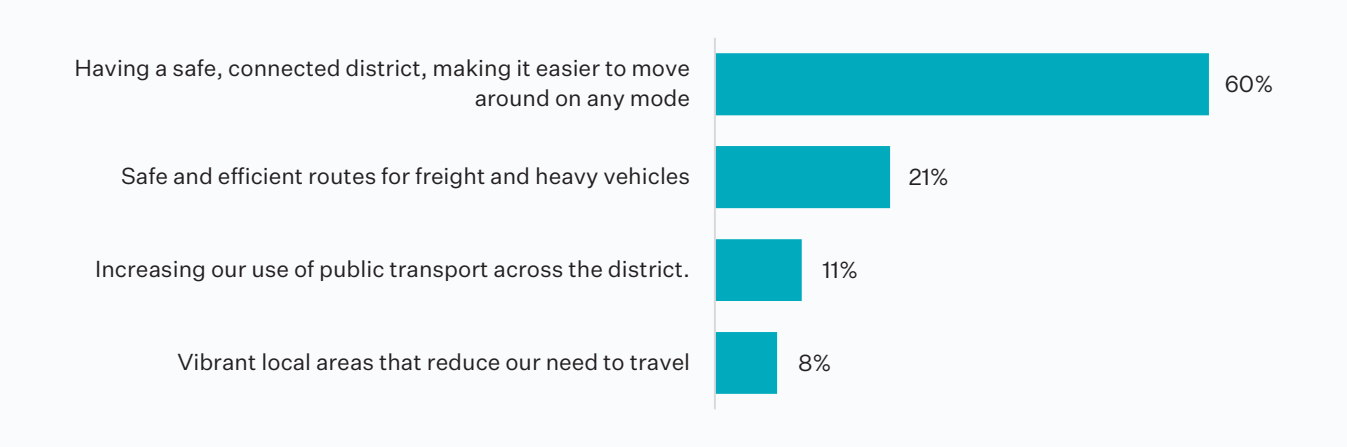
Section 3

Key priorities across transport network

- The residents primarily prioritised having a safe and well-connected district, one that makes it easy for them to move around on any mode.
- Only one in five prioritised having safe and efficient routes for freight and heavy vehicles.
- Making more use of the public transport and making the area more vibrant, that reduces the need for travelling, were lowest on their priority list.

Similar priorities were reported across age-groups, wards, and method of survey distribution (i.e., open link submissions or representative sample survey).

Figure 1: Key priority areas



Q. Considering the four broad themes below, what is your key priority across the district's transport network?
Base: n=500 (representative sample only).

Section 4

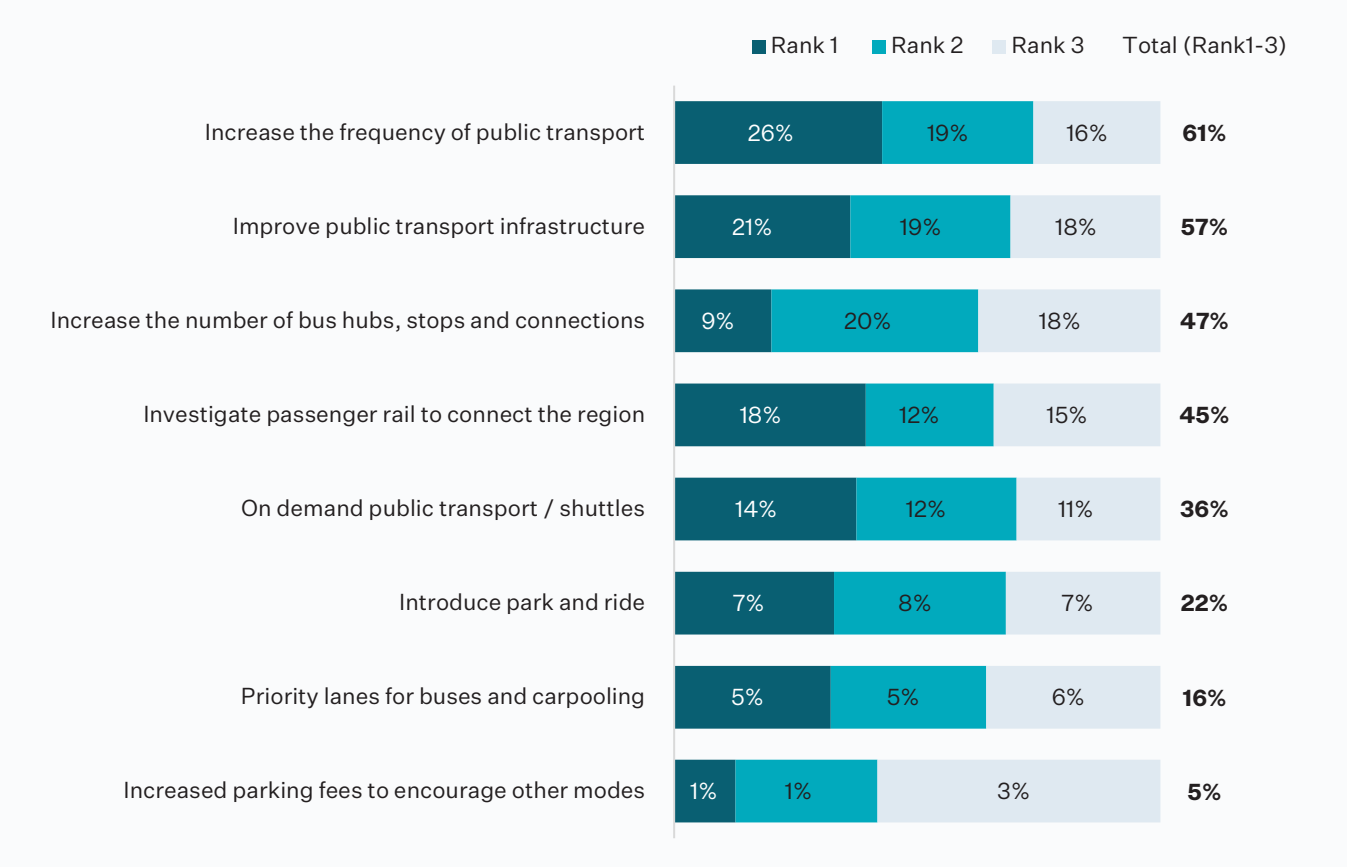
Initiatives to improve public transport

- The primary initiatives that residents value for improving public transport are more frequent public transport service and an enhanced infrastructure.
- Close to half ranked the options of more bus hubs, stops and connections, and having a passenger rail that connects the region amongst their top three priorities.
- Wards were found to be similar in their priorities with no significant differences observed.
- Compared to the representative sample, the open link submissions are significantly higher on prioritising a more frequent public transport and having a passenger rail, and significantly lower on the park and ride option[1].

At least three fourths did not prioritise:

Introducing park and ride,priority lanes for buses and carpooling and more parking fees.

Figure 2: Ranking for public transport initiatives (percentage respondents ranked 1 to 3)



Q. The Council wishes to understand how it can best improve public transport. Of the following public transport initiatives, please rank what you consider to be the 3 top priorities for the Council. Please rank the following initiatives by entering 1, 2 and 3 to indicate your top 3 priorities for the Council – where 1 is the topmost priority. Base: n=500.

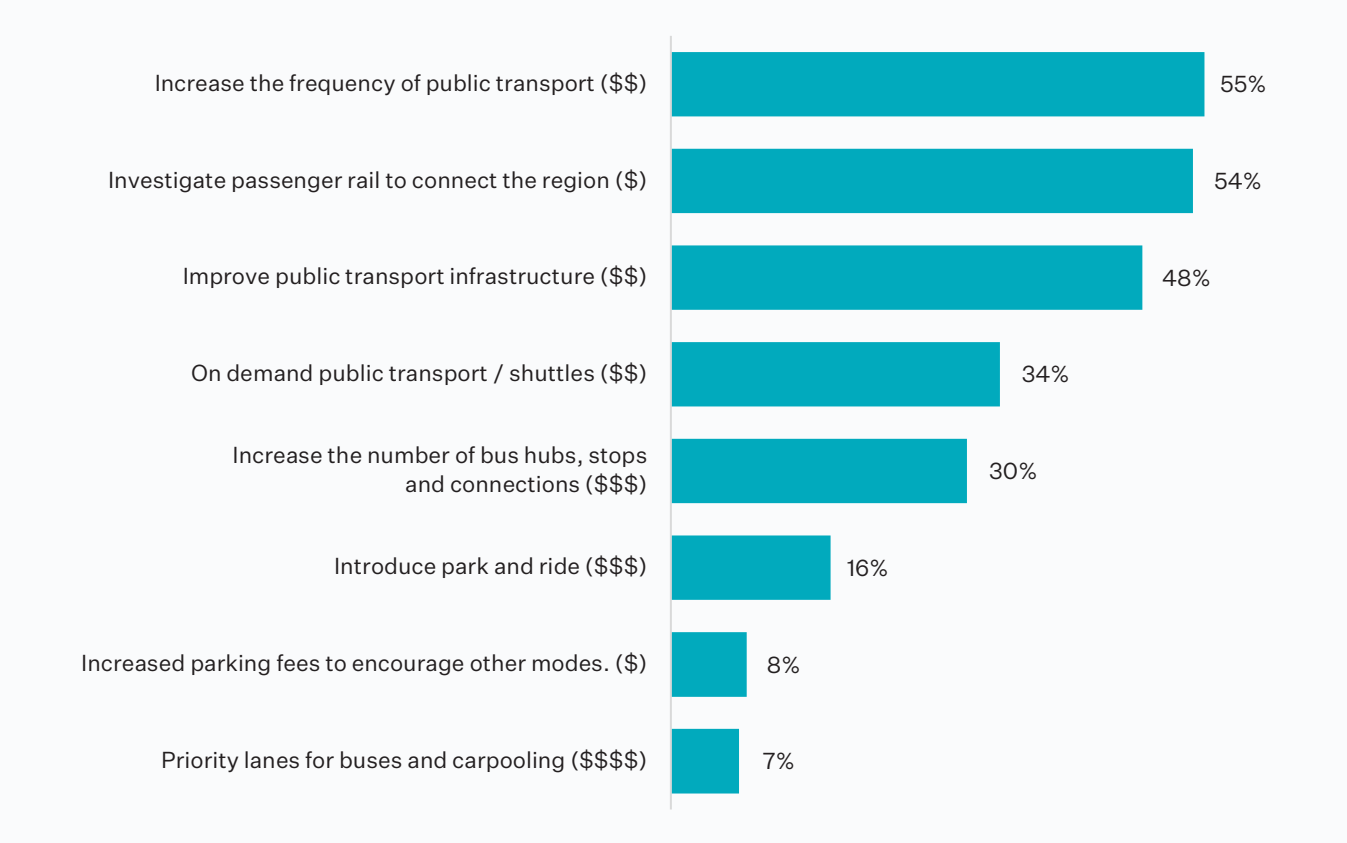
1 Details in Table 4, Appendix A.

After assigning an indicative cost to each of the options, and restricting choices to an allocated budget (i.e., $6) only resulted in a slight shift in the priorities. The following observations were made:

- Over half the residents still prioritised a more frequent public transport service, even though it took up 33 percent of their budget.
- A significantly higher proportion of residents included having a passenger rail to connect the region in their priorities[2]. This initiative has moved up two notches in the priority list (from 4th place to 2nd place), after assigning a dollar value. Being amongst the cheapest initiatives would have contributed here, meaning more respondents could choose the initiative, whilst still selecting the more expensive priorities.
- Having more hubs, stops and connections – which costs residents 50 percent of the allocated budget – has been significantly less prioritised. Nevertheless, it remains a priority for 30 percent of the residents. And it is still prioritised above the options of introducing park and ride and raising parking fees, which either cost the same as or less than the option of more hubs, stops, and connections.
- An interesting observation here is that even though increasing parking fees is the least expensive option, it remains amongst the lowest of priorities for residents.

2 Details in Table 8, Appendix B.

Figure 3: Public transport initiatives prioritised (post assigning an indicative dollar value)



Q. An indicative cost ($) has now been added to each initiative. How would you prioritise the following initiatives, to improve public transport, without going over the allocated budget? You have a maximum of 6 ($$$$$$) to spend on the following initiatives. Base: n=500.

Section 5

Initiatives to improve access to key amenities

One of the challenges that the integrated transport framework aims to address is improving access to key amenities such as schools, the coast, and services.

- With that intent, connecting public transport to key destinations was prioritised the most by respondents.
- This was followed by having a separate route for freight in towns, and resilient connections for all modes.
- About a third of respondents prioritised providing villages with services and shops, resulting in less travel.
- Adding more routes/modes of travel, into New Plymouth and for those living outside New Plymouth, was amongst the lowest preferred initiatives.
- Similar priorities were observed across wards.

Open link respondents are significantly lower in prioritising working from home as a step that could improve access to amenities, compared to the representative sample (15% open link, 24% representative sample)[3].

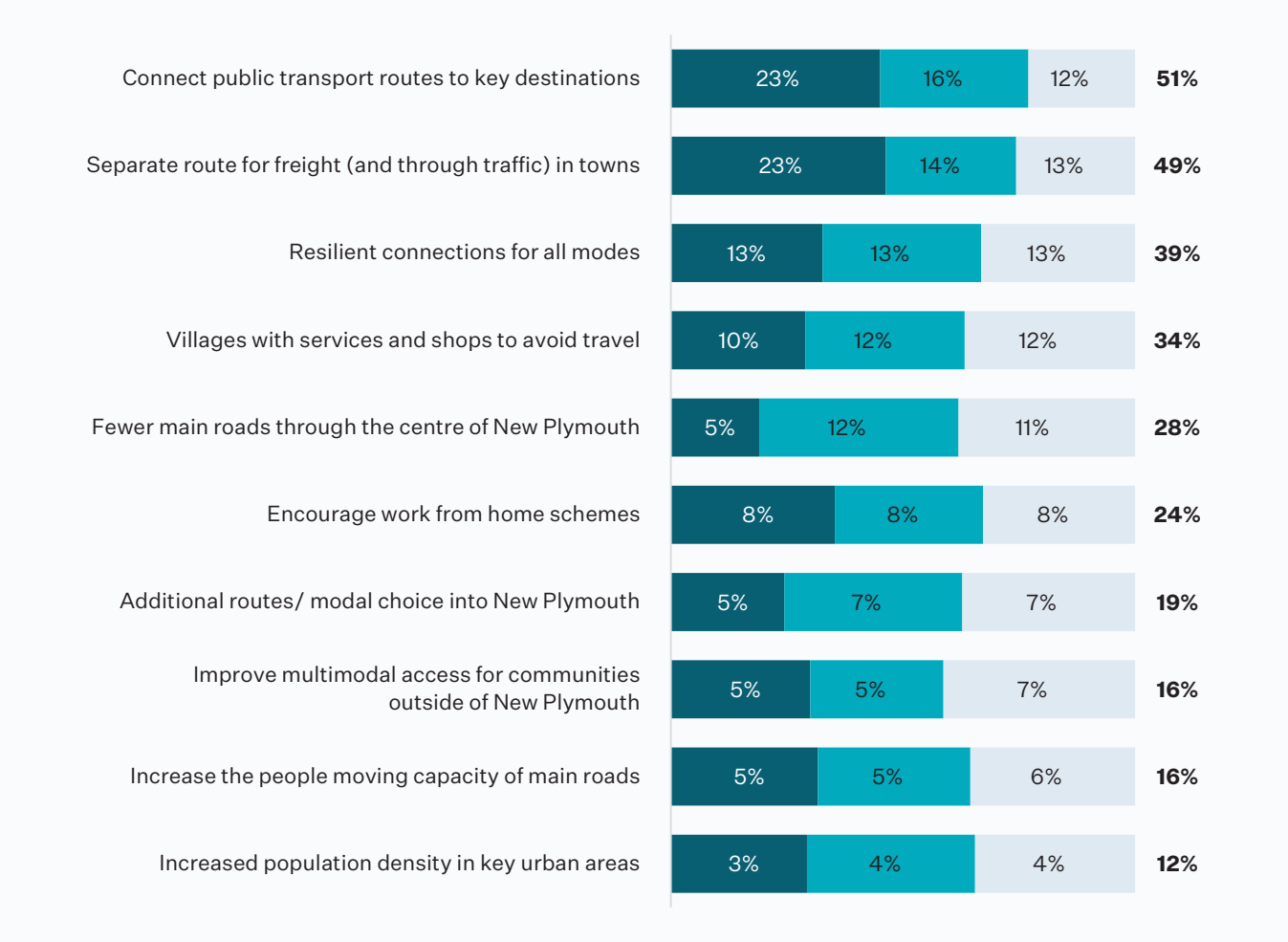
Seniors (65+) prioritised a separate route for freight the most.

A third of 18-44 age group prioritised working from home.

Over 80% did not prioritise increasing road capacity or an increased population density in urban areas.

3 Details in Table 5, Appendix A.

Figure 4: Ranking for initiatives to improve access to key amenities (percentage respondents ranked 1 to 3)



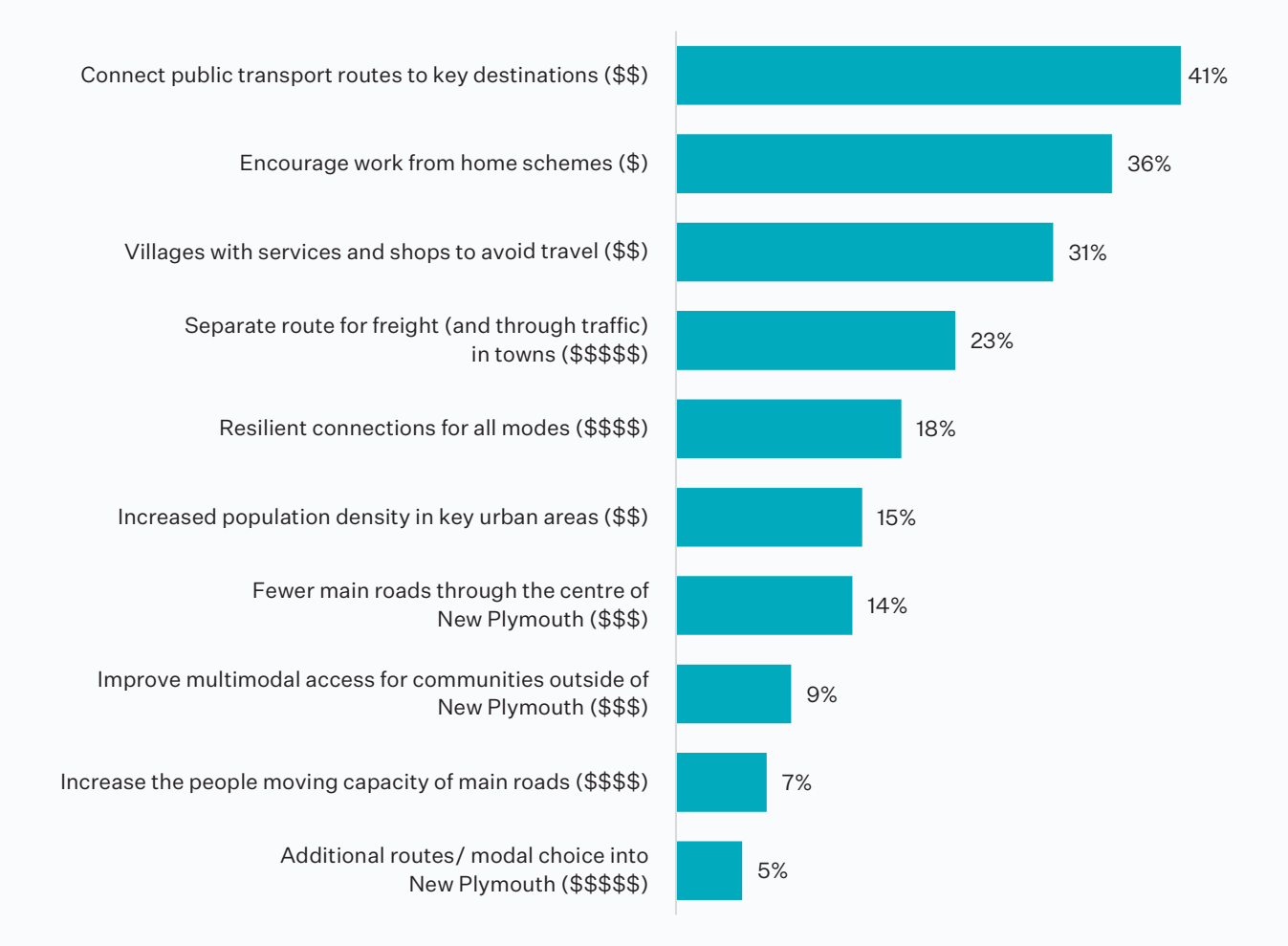
Q. The Council wishes to understand how it can best improve access to key amenities (e.g., schools, the coast, parks) for everyone in the district. Of the following initiatives, please rank what you consider to be the 3 top priorities for the Council. Please rank the following initiatives by entering 1, 2 and 3 to indicate your top 3 priorities for the Council. Base: n=500.

Assigning a cost to each option has significantly influenced residents' prioritisation of some of the initiatives. While some initiatives retained their position due to their perceived value, others – when associated with a higher cost – saw a decline in preference indicating these initiatives are cost sensitive (Fig.5). Some of the less expensive options, for example increasing population density in urban areas, have moved up, whereas the more expensive ones, such as a separate route for freight in towns, have moved down the list of priorities. The following observations were made:

- Connecting public transport routes to key destinations remains the top priority, even though it was prioritised by 10 percent less residents than before.
- Encouraging work from home is second on the list and is prioritised significantly higher than before[4]. However, this could be due to the lowest dollar value assigned to this option.
- Separate routes for freight and resilient connections, the options which would cost the residents at least two-thirds of their allocated budget, were significantly less prioritised than before.
- Adding road capacity and routes are the least of the priorities for the respondents.

4 Details in Table 9, Appendix B.

Figure 5: Initiatives to improve access to amenities prioritised (post assigning an indicative dollar value)



Q. An indicative cost ($) has now been added to each initiative. How would you prioritise the following initiatives to improve access to key amenities (e.g., schools, the coast, parks), without going over the allocated budget? You have a maximum of 6 ($$$$$$). Base: n=500.

Section 6

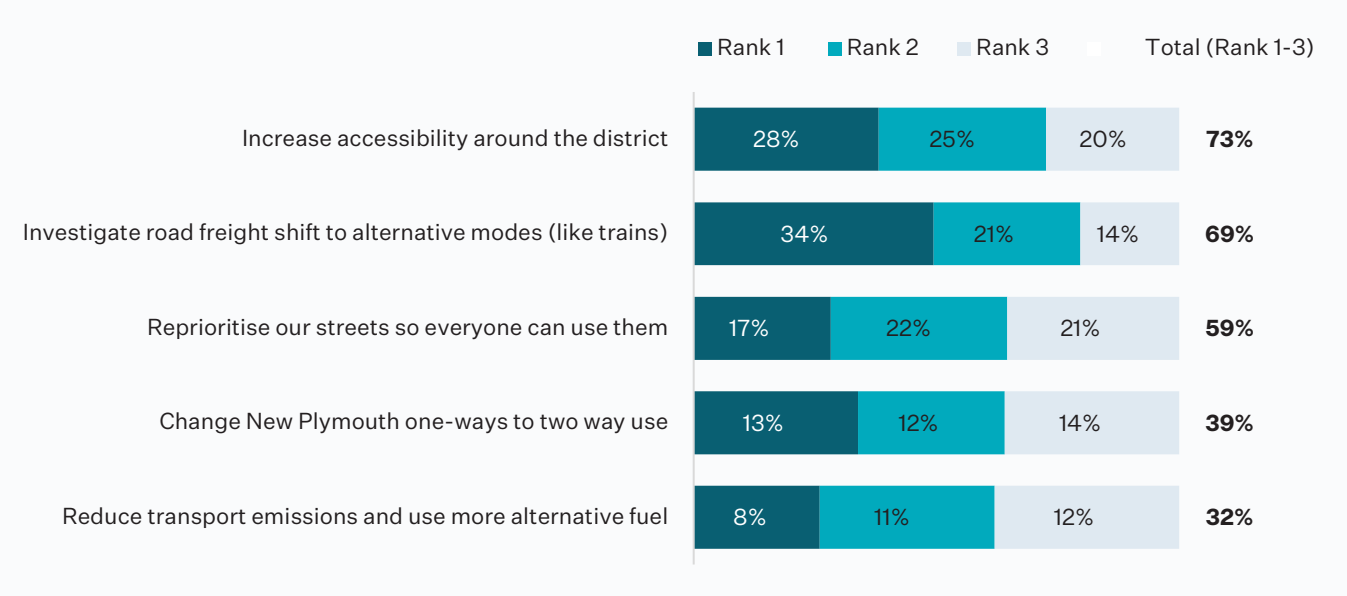
Initiatives to reduce reliance on private vehicles

New Zealand has one of the highest rates of car ownership in the OECD[5]. One of the objectives of the integrated transport plan is to reduce public reliance on private vehicles. The Council wants to understand from the residents what initiatives it should take to reduce this dependence.

- More than two-thirds of respondents prioritised increasing accessibility around the district and shifting road freight to alternative modes.
- Close to 60 percent believed that reprioritising streets would reduce reliance on private vehicles.
- Priorities were not significantly different across wards.

Over 60% did not prioritise converting one-ways to two-ways or reducing transport emissions or switching to alternative fuel.

Figure 6: Initiatives prioritised (percentage respondents ranked 1 to 3)



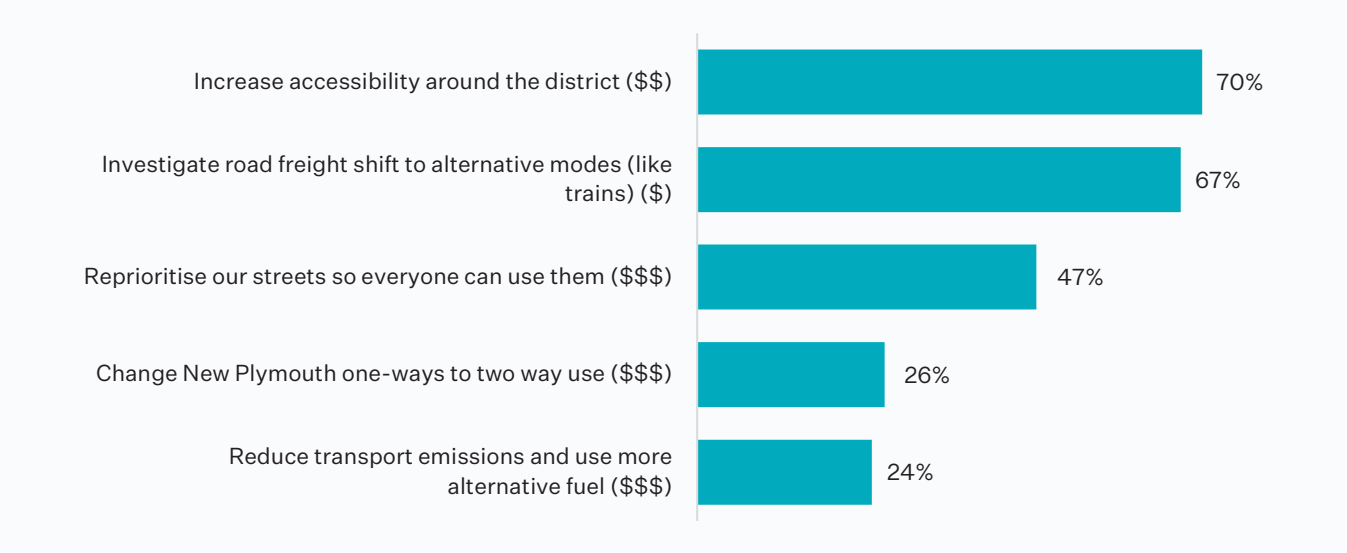
Q. The Council wishes to understand how it can reduce our reliance on private vehicles (including freight). Of the following initiatives, please rank what you consider to be the 3 top priorities for the Council. Please rank the following initiatives by entering 1, 2 and 3 to indicate your top 3 priorities for the Council. Base: n=500.

Regardless of the dollar value assigned, the priorities for initiatives to reduce reliance on private vehicles largely remain unchanged with no significant differences observed (Fig.7).

Those surveyed through the public submissions open link are significantly less likely to prioritise increasing accessibility around the district as a means to reduce the usage of private vehicles, compared to the representative sample (59% open link vs 70% representative sample)[6].

5 https://www.nzta.govt.nz/assets/resources/keeping-cities-moving/Keeping-cities-moving.pdf
6 Details in Table 6, Appendix A.

Figure 7: Initiatives prioritised for implementation (post assigning an indicative dollar value)



Q. An indicative cost ($) has now been added to each initiative. How would you prioritise the following initiatives to reduce our reliance on private, without going over the allocated budget? You have a maximum of 6 ($$$$$$) to spend on the following initiatives. Base: n=500.

Section 7

Initiatives to encourage active travel modes

With a decrease in the usage of active modes (walking or cycling) post Covid[7], the Council wants to understand what initiatives it should take to improve the currently fragmented active travel network (i.e., cycling and walking network and facilities).

At least 30 percent prioritised the following initiatives:

- improving existing road connections;
- upgrading bridges; and
- building raised crossings.

Respondents from across the wards had the same priorities.

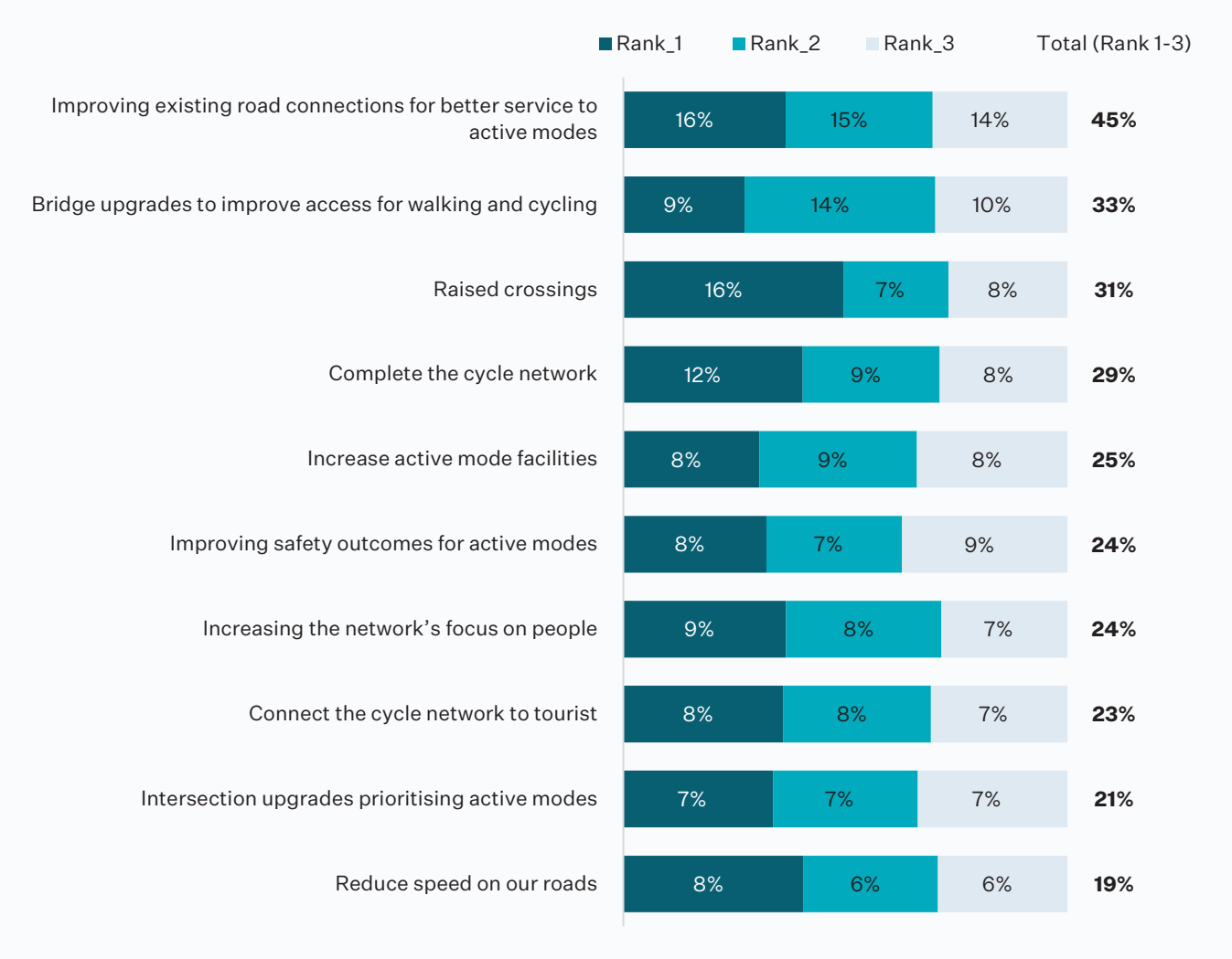
The representative sample was, however, more likely to prioritise improving road conditions and raised crossings, whereas the public submissions open link prioritised completing the cycle network significantly more than the former[8].

For over 80% residents upgrading intersections and reducing speed on the roads were not their top 3 priorities.

7 https://www.nzta.govt.nz/assets/resources/understanding-attitudes-and-perceptions-of-cycling-and-walking/Waka-Kotahi-Attitudes-to-cycling-and-walking-final-report-2022.pdf

8 Details in Table 7, Appendix A.

Figure 8: Active travel network initiatives prioritised (percentage respondents ranking 1 to 3)



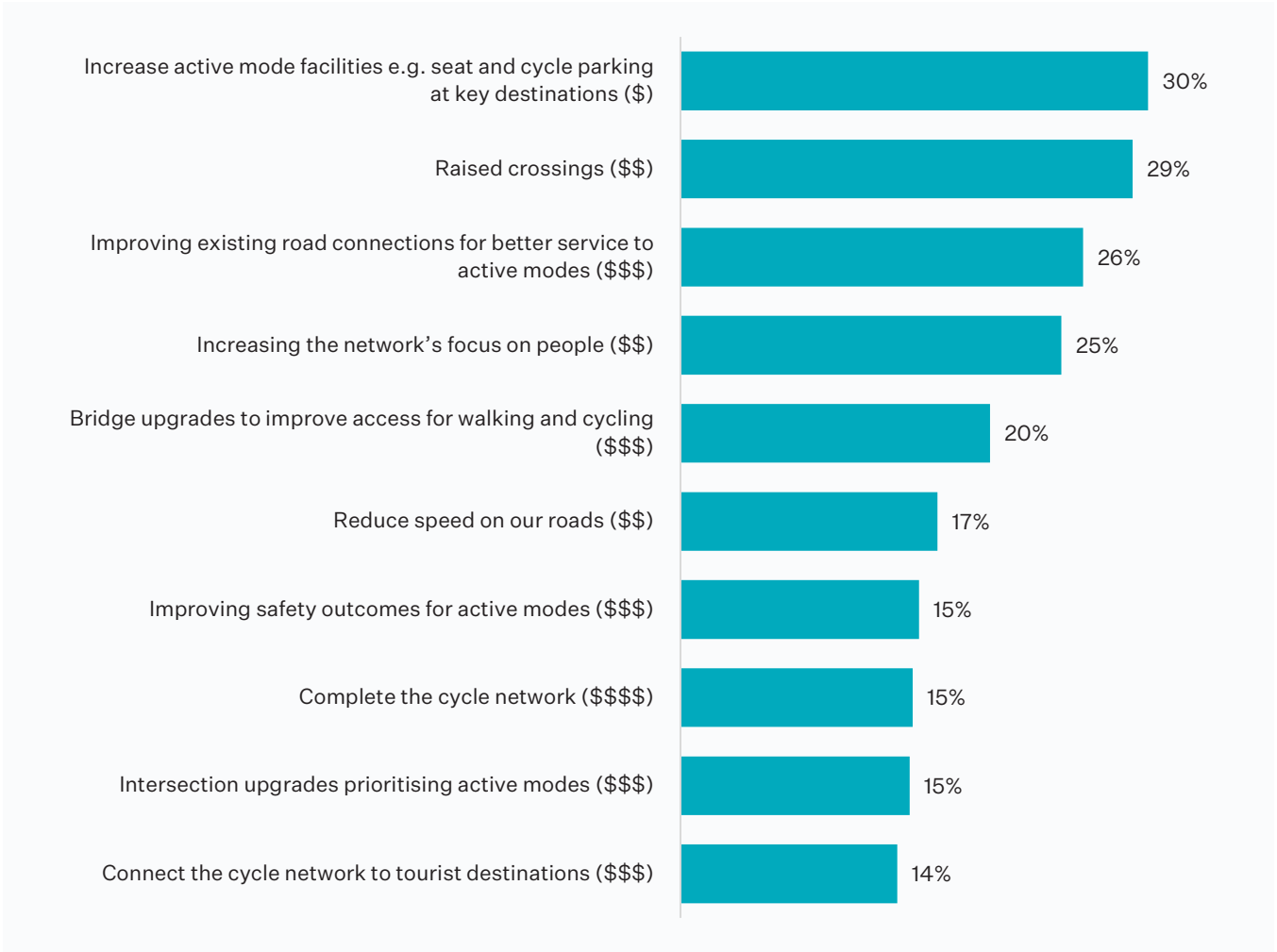
Q. The Council wishes to understand how it can improve our active travel network and encourage more people to walk and cycle. Of the following initiatives, please rank what you consider to be the 3 top priorities for the Council. Please rank the following initiatives by entering 1, 2 and 3 to indicate your top 3 priorities for the Council. Base: n=500.

Residents were observed to be price sensitive when choosing their priorities for improving the active travel network.

- Improving existing road conditions for active modes – which topped the priority list earlier (top 3 for 45% residents), was chosen by only 26 percent of the residents post assigning a price value.
- Increasing facilities for active travel such as parking for cycles, which was the least expensive option, became the topmost priority. It was prioritised by significantly more residents than before[9].
- A similar trend was observed with other low-priced options, such as reducing speed and increasing the network's focus on people, which were prioritised above the expensive options.
- Fewer residents than before were observed to prioritise the more expensive initiatives such as improving safety outcomes, completing, and connecting cycle networks to tourist destinations, and upgrading intersections to prioritise active modes.

9 Details in Table 10, Appendix B.

Figure 9: Active travel network priorities (post assigning an indicative dollar value)



Q. An indicative cost ($) has now been added to each initiative. How would you prioritise the following initiatives, to improve our active travel network and encourage more people to walk and cycle, without going over the allocated budget? You have a maximum of 6 ($$$$$$) to spend on the following initiatives. Base: n=500.

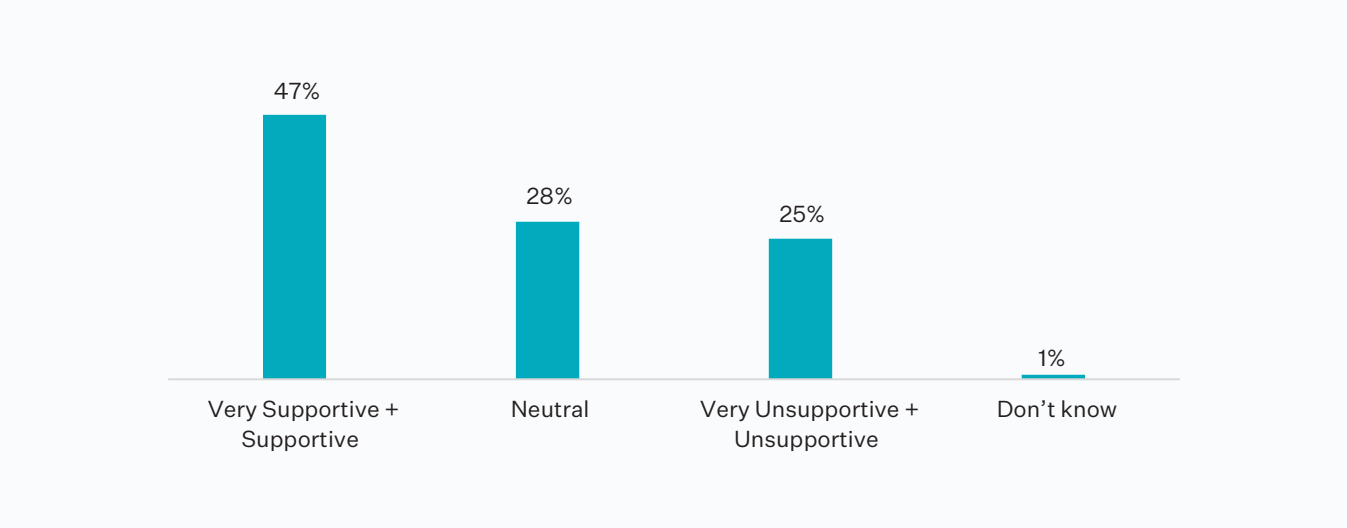
Section 8

Support for roading upgrades

Public perception of cycling as a way of getting around has softened since 2022[10]. The Council wants to understand how supportive the residents are of future roading upgrades that would improve the safety for pedestrians and cyclists.

- About half are supportive of future upgrades towards making roads safer and easier for those who walk or cycle.
- A quarter are unsupportive of these upgrades.
- A significant 28 percent are neutral. This could be because they are either unaware of the upgrades being planned or are unsure if the upgrades would help the cause.

Figure 10: Residents' support for future roading upgrades for choosing walking or cycling



Q. What is your level of support for future roading upgrades that make it safer and easier, for people who choose to walk or cycle for some trips? Base: n=500. Figures are rounded to the nearest whole number. The total may exceed 100%.

10 https://www.nzta.govt.nz/assets/resources/understanding-attitudes-and-perceptions-of-cycling-and-walking/Waka-Kotahi-Attitudes-to-cycling-and-walking-final-report-2022.pdf

- The public submissions open link survey gathered more support (6% higher) than that garnered from the representative sample. Also, significantly less were neutral in their response when compared to the representative sample (Fig.11).
- Across wards, an almost similar level of support was observed.

Table 3: Level of support for road upgrades by survey distribution channel

Column %	RF REP (Dynata) + RF REP (SP)	Open
Unsupportive + Very Unsupportive	25%	28%
Neutral	28% ↑	18% ↓
Supportive + Very Supportive	47%	53%
Don't know	1%	0%
Total respondents	500	305

Section 9

Additional feedback about Integrated Transport Framework

Congruent with the findings of the survey thus far, the residents have provided feedback that touches various areas of the NPDC's transport framework draft, particularly how they perceived the initiatives for cyclists and pedestrians.

1. Mixed feedback on cycling and walking initiatives.

The respondents' feedback on cycling or walking initiatives is diverse. Some were supportive of measures to increase safety and accessibility for pedestrians and cyclists and were enthusiastic about promoting cycling and walking. The need for better maintenance of existing cycleways and footpaths was also highlighted, with an emphasis on the safety of walkers from cyclists.

> "I would like to see the current cycle lanes in New Plymouth made safer. Cars continually drive in the cycle lanes, and nothing is done to stop them. I am a walker, and I am fed up with walking around corners and meeting bikes on the footpath. It would save a lot of money if the cycle lanes were policed, and fines given out to drivers who do drive in cycle lanes".

Others raised concerns about the practicality and impact of such initiatives on businesses and accessibility to amenities. These were particularly opposed to the proposed reduction of car parks, increasing parking fees, and squeezing the roads to accommodate cycle ways.

> "PLEASE LEAVE THE CARPARKS ALONE!! Businesses need car parks, PARENTS WITH MULTIPLE SMALL CHILDREN NEED CARPARKS!! THE ELDERLY NEED CARPARKS!!! THE DISABLED NEED CARPARKS!"

2. Fix current roads before starting new projects.

Residents felt that the Council should spend the rate payers' money on repairing the roads, rather than on cycle ways with very few cyclists currently using them.

> "I would prefer the potholes are fixed on non-NZTA roads within Taranaki before starting a big cycle/walk project".

> "How about repair the roads around here before you waste millions of ratepayer dollars on cycleways that most people will never use, especially in the Winter".

3. *Improve and explore other modes of public transport first and shift freight.*

Some residents suggested that transport means, such as rail and bus services connecting New Plymouth, be explored and/or improved first.

> “I think the focus should be on improving public transport rather than cycle ways first. Also, why can’t the very wide paths on Devon St. West be shared pedestrian/cycle paths?”

> “First get more freight onto trains and coastal shipping and create a proper bus system using half size buses for economy.”

Shifting to alternative modes such as cycling or walking, wasn’t seen as a practical option for the elderly or disabled, or for geographical reasons.

> “Alternative transportation is not a reality for many & with the geography, layout and spread-out nature of services in New Plymouth”.

4. *Taking a balanced approach.*

Overall, the feedback indicates the need for a balanced approach that considers the needs of all road users, the impact on businesses, and the specific context and preferences of the local population.

> “It’s good to encourage people cycle and walking more. But weather in Taranaki can be an issue. Perhaps public transportation frequency and coverage is better”.

> “Any change needs to be balanced, not everyone wants radical change in favour of a minority group, i.e., cyclists”.

Section 10

Conclusion

The residents of NPDC who participated in the research prioritise having a safe, well-connected district where they can move around on any mode, and safe and efficient routes for freight and heavy vehicles.

While half of the residents supported making the active travel network safer and easier, others suggested improving the existing public transport system: the frequency and number of services, fixing the roads, and being mindful of the needs and limitations of the less advantaged population – which includes the elderly and disabled.

Proposed initiatives of reducing car parks in the district and increasing the parking fees to encourage residents to shift to a more active travel mode and less use of their private vehicles, were not appreciated.

Access to amenities could be improved by connecting public transport to key places and providing separate routes for freight and heavy vehicles.

Use of private vehicles could be reduced by making the district more accessible and shifting the road freight to other modes, such as railways.

To encourage the residents to easily walk or cycle whist also feeling safe, it is suggested that the Council improves roads, upgrades bridges, and has raised crossings. Increasing facilities such as cycle parking and seating was prioritised after assigning dollar values to various initiatives in this area.

Section 11

Appendix A - Survey responses by survey method

The following section reports on survey responses where statistically significant differences were observed across the method of distributing surveys.

Table 4: Priorities for public transport initiatives by survey method

Column %	Total percentage (Ranked 1 to 3)		
	RF REP (Dynata) + RF REP (SP)	Open	Total
Increase the frequency of public transport	61% ↓	70% ↑	65%
Improve public transport infrastructure	57%	54%	56%
Increase the number bus hubs, stops and connections	47%	47%	47%
Investigate passenger rail to connect the region	45% ↓	54% ↑	48%
On demand public transport / shuttles	36% ↑	28% ↓	33%
Introduce park and ride	22%	18%	21%
Priority lanes for buses and carpooling	16%	13%	15%
Increased parking fees to encourage other modes	5%	5%	5%
Total sample; Unweighted; base n = 805			

Table 5: Priorities for improving access to key amenities by survey method

Column %	Total percentage (ranked 1 to 3)		
	RF REP (Dynata) + RF REP (SP)	Open	Total
Connect public transport routes to key destinations	51%	49%	50%
Separate route for freight (and through traffic) in towns	49%	52%	50%
Resilient connections for all modes	39%	35%	37%
Villages with services and shops to avoid travel	34%	30%	32%
Fewer main roads through the centre of New Plymouth	28%	25%	27%
Encourage work from home schemes	24% ↑	15% ↓	20%
Additional routes/ modal choice into New Plymouth	19%	18%	19%
Improve multimodal access for communities outside of New Plymouth	16%	21%	18%
Increase the people moving capacity of main roads	16%	19%	17%
Increased population density in key urban areas	12% ↓	19% ↑	14%
Total sample; Unweighted; base n = 805			

Table 6: Priorities to reduce reliance on private vehicles by survey method

Column %	Total percentage (ranked 1 to 3)		
	RF REP (Dynata) + RF REP (SP)	Open	Total
Increase accessibility around the district	73% ↑	61% ↓	68%
Investigate road freight shift to alternative modes (like trains)	69% ↓	77% ↑	72%
Reprioritise our streets so everyone can use them	59% ↑	51% ↓	56%
Change New Plymouth one-ways to two-way use	39%	33%	37%
Reduce transport emissions and use more alternative fuel	32% ↓	42% ↑	35%
Total sample; Unweighted; base n = 805			

Table 7: Priorities to encourage residents towards using active travel modes by survey method

Column %	Total percentage (ranked 1 to 3)		
	RF REP (Dynata) + RF REP (SP)	Open	Total
Improving existing road connections for better service to active modes	45% ↑	32% ↓	40%
Bridge upgrades to improve access for walking and cycling	33%	29%	31%
Raised crossings	31% ↑	21% ↓	28%
Complete the cycle network	29% ↓	39% ↑	33%
Increase active mode facilities	25%	22%	24%
Improving safety outcomes for active modes	24% ↓	31% ↑	27%
Increasing the network's focus on people	24% ↓	31% ↑	27%
Connect the cycle network to tourist	23%	23%	23%
Intersection upgrades prioritising active modes	21%	16%	19%
Reduce speed on our roads	19%	14%	17%
Total sample; Unweighted; base n = 805			

Section 12

Appendix B -Survey responses (prior to and post assigning a dollar value)

The following section reports on survey responses where statistically significant differences were observed in respondents' prioritisation for initiatives, post assigning a cost figure and restricting their choices to the budget allocated.

Table 8: Public transport initiatives prioritised (percentage respondents)

% Respondents	Prioritised (i.e., amongst top 3)	Prioritised, post assigning a dollar value
Increase the frequency of public transport	61%	55%
Improve public transport infrastructure	57%	48%
Increase the number bus hubs, stops and connections	47% ↑	30% ↓
Investigate passenger rail to connect the region	45% ↓	54% ↑
On demand public transport / shuttles	36%	34%
Introduce Park and ride	22%	16%
Priority lanes for buses and carpooling	16%	7%
Increased parking fees to encourage other modes	5%	8%

Q.2.The Council wishes to understand how it can best improve public transport. Of the following public transport initiatives, please rank what you consider to be the 3 top priorities for the Council. Q.3. An indicative cost ($) has now been added to each initiative. How would you prioritise the following initiatives, to improve public transport, without going over the allocated budget? You have a maximum of 6 ($$$$$$) to spend on the following initiatives.

Base (Representative sample only): n=500.

Table 9: Access to key amenities initiatives prioritised (percentage respondents)

% Respondents	Prioritised (amongst top 3)	Prioritised, post assigning a dollar value
Connect public transport routes to key destinations	51%	41%
Separate route for freight (and through traffic) in towns	49% ↑	23% ↓
Resilient connections for all modes	39% ↑	18% ↓
Villages with services and shops to avoid travel	34%	31%
Fewer main roads through the centre of New Plymouth	28%	14%
Encourage work from home schemes	24% ↓	36% ↑
Additional routes/ modal choice into New Plymouth	19% ↑	5% ↓
Improve multimodal access for communities outside of New Plymouth	16%	9%
Increase the people moving capacity of main roads	16%	7%
Increased population density in key urban areas	12% ↓	15% ↑

Q4. The Council wishes to understand how it can best improve access to key amenities (e.g., schools, the coast, parks) for everyone in the district. Of the following initiatives, please rank what you consider to be the 3 top priorities for the Council. Q5. An indicative cost ($) has now been added to each initiative. How would you prioritise the following initiatives to improve access to key amenities (e.g., schools, the coast, parks), without going over the allocated budget? You have a maximum of 6 ($$$$$$) to spend on the following initiatives.

Base (Representative sample only): n=500.

Table 10: Active travel mode initiatives prioritised (percentage respondents)

% Respondents	Prioritised (amongst top 3)	Prioritised, post assigning a dollar value
Improving existing road connections for better service to active modes	45%	26%
Bridge upgrades to improve access for walking and cycling	33%	20%
Raised crossings	31%	29%
Complete the cycle network	29%	15%
Increase active mode facilities	25% ↓	30% ↑
Improving safety outcomes for active modes	24%	15%
Increasing the network's focus on people	24%	25%
Connect the cycle network to tourist	23%	14%
Intersection upgrades prioritising active modes	21%	15%
Reduce speed on our roads	19%	17%

Q8. The Council wishes to understand how it can improve our active travel network and encourage more people to walk and cycle. Of the following initiatives, please rank what you consider to be the 3 top priorities for the Council.
Q9. An indicative cost ($) has now been added to each initiative. How would you prioritise the following initiatives, to improve our active travel network and encourage more people to walk and cycle, without going over the allocated budget? You have a maximum of 6 ($$$$$$) to spend on the following initiatives.

Base (Representative sample only): n=500.

Section 13

Appendix C - Questionnaire

Introduction

- Considering the four broad themes below, what is your key priority across the district's transport network?

1	Having a safe, connected district, making it easier to move around on any mode
2	Vibrant local areas that reduce our need to travel
3	Safe and efficient routes for freight and heavy vehicles
4	Increasing our use of public transport across the district.

Public Transport Initiatives

- The Council wishes to understand how it can best improve public transport. Of the following public transport initiatives, please rank what you consider to be the 3 top priorities for the Council.

Please rank the following initiatives by entering 1, 2 and 3 to indicate your top 3 priorities for the Council.

1	Improve public transport infrastructure Better bus stops, passenger facilities, and safe, well-lit places to get on and off public transport.
2	**On demand public transport / shuttles** Small, shared vehicles you can book by app when you need them, that are cheaper than taxis.
3	**Priority lanes for buses and carpooling** Road lanes that are only able to be used by vehicles with more than one person in them, at busy times of day.
4	**Increase the frequency of public transport** More buses to more places, more often, on every day of the week.
5	**Introduce park and ride** Option to park in carparks on the edge of town and then finish your journey in a shared vehicle.
6	**Investigate passenger rail to connect the region** Commission a study alongside Taranaki Regional Council to determine if passenger rail is possible for our region i.e. find out if there is enough demand to support passenger rail.
7	**Increase the number bus hubs, stops and connections** More places with facilities to change routes, comfortably and safely, to get to more places faster.
8	**Increased parking fees to encourage other modes** Increase parking fees to make other ways to travel more appealing.

9	**Digital Innovation** Use of technology to support smarter and more efficient public transport e.g. tap and go payment, real-time info at bus stops, and apps with route information.

- An indicative cost ($) has now been added to each initiative. How would you prioritise the following initiatives, to improve public transport, without going over the allocated budget?

You have a maximum of 6 ($$$$$$) to spend on the following initiatives, if you were in charge, which initiatives would you implement well remaining within the allocated budget?

For example Improve public transport ($$) and Priority Lanes for buses and carpooling ($$$$) = 6 ($)

1	Improve public transport infrastructure ($$) Better bus stops, passenger facilities, and safe, well-lit places to get on and off public transport.
2	**On demand public transport / shuttles** ($$) Small, shared vehicles you can book by app when you need them, that are cheaper than taxis.
3	**Priority lanes for buses and carpooling** ($$$$) Road lanes that are only able to be used by vehicles with more than one person in them, at busy times of day.
4	**Increase the frequency of public transport** ($$) More buses to more places, more often, on every day of the week.
5	**Introduce park and ride** ($$$) Option to park in carparks on the edge of town and then finish your journey in a shared vehicle.
6	**Investigate passenger rail to connect the region** ($) Commission a study alongside Taranaki Regional Council to determine if passenger rail is possible for our region i.e. find out if there is enough demand to support passenger rail.
7	**Increase the number bus hubs, stops and connections** ($$$) More places with facilities to change routes, comfortably and safely, to get to more places faster.
8	**Increased parking fees to encourage other modes** ($) Increase parking fees to make other ways to travel more appealing.
9	**Digital Innovation** ($$) Use of technology to support smarter and more efficient public transport e.g. tap and go payment, real-time info at bus stops, and apps with route information.

Key Amenities Initiatives

- The Council wishes to understand how it can best improve access to key amenities (e.g., schools, the coast, parks) for everyone in the district. Of the following initiatives, please rank what you consider to be the 3 top priorities for the Council.

Please rank the following initiatives by entering 1, 2 and 3 to indicate your top 3 priorities for the Council.

1	Fewer main roads through the centre of New Plymouth Redirect some through traffic away from our town centre to make space for people who want to spend time there.
2	**Connect public transport routes to key destinations** Ensure you can get to work, school, sports, health appointments and have fun by taking public transport.
3	I**mprove multimodal access for communities outside of New Plymouth** Enable people who live outside New Plymouth to walk, cycle, or take public transport in and around their local centres.
4	**Resilient connections for all modes** Make sure our transport links are reliable e.g. by increasing capacity, improving access to key destinations and our rural areas, and implementing safety improvements which lead to fewer crashes and delays.
5	**Increased population density in key urban areas** Encourage compact urban centres and focus on building communities with infrastructure that enables active travel.
6	**Encourage work from home schemes** Reduce travel to work during peak times by encouraging businesses to enable their staff to work from home.
7	**Separate route for freight (and through traffic) in towns.** Direct the transit of goods and vehicles that are passing through to use a separate road to ease congestion in towns.
8	**Additional routes/ modal choice into New Plymouth** Build new roads with better cycling and walking facilities to increase options for travelling in New Plymouth.
9	**Increase the people moving capacity of main roads** Add bus lanes and better paths for cycling, walking and other modes on our main roads.
10	**Villages with services and shops to avoid travel** Plan for the places we live to have enough shops and places like pharmacies and doctors, so we don't need to rely on travel to our main centre for these services.

- An indicative cost ($) has now been added to each initiative. How would you prioritise the following initiatives to improve access to key amenities (e.g., schools, the coast, parks), without going over the allocated budget?

You have a maximum of 6 ($$$$$$) to spend on the following initiatives, if you were in charge, which initiatives would you implement well remaining within the allocated budget?

1	Fewer main roads through the centre of New Plymouth ($$$) Redirect some through traffic away from our town centre to make space for people who want to spend time there.
2	**Connect public transport routes to key destinations** ($$) Ensure you can get to work, school, sports, health appointments and have fun by taking public transport.
3	**Improve multimodal access for communities outside of New Plymouth** ($$$) Enable people who live outside New Plymouth to walk, cycle, or take public transport in and around their local centres.
4	**Resilient connections for all modes** ($$$$) Make sure our transport links are reliable e.g. by increasing capacity, improving access to key destinations and our rural areas, and implementing safety improvements which lead to fewer crashes and delays.
5	**Increased population density in key urban areas** ($$) Encourage compact urban centres and focus on building communities with infrastructure that enables active travel.
6	**Encourage work from home schemes** ($) Reduce travel to work during peak times by encouraging businesses to enable their staff to work from home.
7	**Separate route for freight (and through traffic) in towns.** ($$$$$) Direct the transit of goods and vehicles that are passing through to use a separate road to ease congestion in towns.
8	**Additional routes/ modal choice into New Plymouth** ($$$$$) Build new roads with better cycling and walking facilities to increase options for travelling in New Plymouth.
9	**Increase the people moving capacity of main roads** ($$$$) Add bus lanes and better paths for cycling, walking and other modes on our main roads.
10	**Villages with services and shops to avoid travel** ($$) Plan for the places we live to have enough shops and places like pharmacies and doctors, so we don't need to rely on travel to our main centre for these services.

Private Vehicle Initiatives

- The Council wishes to understand how it can reduce our reliance on private vehicles (including freight. Of the following initiatives, please rank what you consider to be the 3 top priorities for the Council.

Please rank the following initiatives by entering 1, 2 and 3 to indicate your top 3 priorities for the Council.

1	Change New Plymouth one-ways to two way use (freight to use outer state highway) Change the one-way system to two-ways for light vehicles, making it safer to walk, cycle and travel by other modes, and freight can utilise the outer state highway.
2	**Reduce transport emissions and use more alternative fuel** Reduce fossil fuel consumption by providing more EV charging and exploring options like electric or hydrogen buses, and moving freight to rail and the sea.
3	**Reprioritise our streets so everyone can use them** Ensure that all people (whether in a car or not) feels safe, comfortable and can get to their destination within a reasonable time.
4	**Increase accessibility around the district** Ensure that people can access school, work and leisure in our district in whatever way they want.
5	**Investigate road freight shift to alternative modes (like trains)** Find out if there are other options to moving freight, such as by rail or sea.

An indicative cost ($) has now been added to each initiative. How would you prioritise the following initiatives to reduce our reliance on private, without going over the allocated budget?

You have a maximum of 6 ($$$$$$) to spend on the following initiatives, if you were in charge, which initiatives would you implement well remaining within the allocated budget?

1	Change New Plymouth one-ways to two way use (freight to use outer state highway) ($$$) Change the one-way system to two-ways for light vehicles, making it safer to walk, cycle and travel by other modes, and freight can utilise the outer state highway.
2	**Reduce transport emissions and use more alternative fuel ($$$)** Reduce fossil fuel consumption by providing more EV charging and exploring options like electric or hydrogen buses, and moving freight to rail and the sea.
3	**Reprioritise our streets so everyone can use them ($$$)** Ensure that all people (whether in a car or not) feels safe, comfortable and can get to their destination within a reasonable time.

4	**Increase accessibility around the district ($$)** Ensure that people can access school, work and leisure in our district in whatever way they want.
5	**Investigate road freight shift to alternative modes (like trains) ($)** Find out if there are other options to moving freight, such as by rail or sea.

Active Travel Network Initiatives

- The Council wishes to understand how it can improve our active travel network and encourage more people to walk and cycle. Of the following initiatives, please rank what you consider to be the 3 top priorities for the Council.
- Please rank the following initiatives by entering 1, 2 and 3 to indicate your top 3 priorities for the Council.

1	Complete the cycle network Fill in all the gaps in our cycle ways so people on bikes can travel across the district safely.
2	**Increasing the network's focus on people** Plan our travel network by thinking about how people move, rather than how cars move.
3	**Intersection upgrades prioritising active modes** Upgrade our intersections to ensure people walking or cycling have priority when crossing or turning.
4	**Bridge upgrades to improve access for walking and cycling** Link up our cycle ways by improving or installing bridge crossings for people walking or cycling.
5	**Raised crossings** Installing crossings that provide a much clearer and safer crossing for people walking, cycling and using mobility devices by encouraging drivers to slow down when approaching them.
6	**Connect the cycle network to tourist destinations** Enable visitors to cycle to main attractions in our district and encourage them to stay and use our retail and hospitality.
7	**Improving existing road connections for better service to active modes** Investigate what can be done to make current connections more attractive to people walking and cycling e.g., shared paths and low-traffic greenways, better lighting, and park and ride for the coastal walkway.
8	**Increase active mode facilities e.g., seat and cycle parking at key destinations** Make walking and cycling more comfortable, safe and secure by providing facilities e.g., rest stops, toilets, and secure parking for people walking and riding.
9	**Reduce speed on our roads** Make walking and cycling more appealing by reducing the speed of motor vehicles on some roads.
10	**Improving safety outcomes for active modes** Introduce safety measures for people walking and cycling e.g., adding cyclist buffer zones, extending protection through intersections and improving walkway surfaces.

- An indicative cost ($) has now been added to each initiative. How would you prioritise the following initiatives, to improve our active travel network and encourage more people to walk and cycle, without going over the allocated budget?

You have a maximum of 6 ($$$$$$) to spend on the following initiatives, if you were in charge, which initiatives would you implement well remaining within the allocated budget?

1	Complete the cycle network ($$$$) Fill in all the gaps in our cycle ways so people on bikes can travel across the district safely.
2	**Increasing the network's focus on people ($$)** Plan our travel network by thinking about how people move, rather than how cars move.
3	**Intersection upgrades prioritising active modes ($$$)** Upgrade our intersections to ensure people walking or cycling have priority when crossing or turning.
4	**Bridge upgrades to improve access for walking and cycling ($$$)** Link up our cycle ways by improving or installing bridge crossings for people walking or cycling.
5	**Raised crossings ($$)** Installing crossings that provide a much clearer and safer crossing for people walking, cycling and using mobility devices by encouraging drivers to slow down when approaching them.
6	**Connect the cycle network to tourist destinations ($$$)** Enable visitors to cycle to main attractions in our district and encourage them to stay and use our retail and hospitality.
7	**Improving existing road connections for better service to active modes ($$$)** Investigate what can be done to make current connections more attractive to people walking and cycling e.g., shared paths and low-traffic greenways, better lighting, and park and ride for the coastal walkway.
8	**Increase active mode facilities e.g., seat and cycle parking at key destinations ($)** Make walking and cycling more comfortable, safe, and secure by providing facilities e.g., rest stops, toilets, and secure parking for people walking and riding.
9	**Reduce speed on our roads ($$)** Make walking and cycling more appealing by reducing the speed of motor vehicles on some roads.
10	**Improving safety outcomes for active modes ($$$)** Introduce safety measures for people walking and cycling e.g., adding cyclist buffer zones, extending protection through intersections, and improving walkway surfaces.

Final remarks

What is your level of support for future roading upgrades that make it safer and easier, for people who choose to walk or cycle for some trips?

1	Very Unsupportive
2	Unsupportive
3	Neutral
4	Supportive
5	Very Supportive
99	Don't know

Do you have any other feedback you wish to provide NPDC about its draft Integrated Transport Framework?

Thank you. That is all the questions for today. Thanks so much for your time and help.

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Community group	Problem Statement 1 Public Transport	Problem Statement 2 Private vehicle reliance	Problem Statement 3 Severance and amenity	Problem Statement 4 Active modes	Other Comments
Age Concern **23/08/23** **Richard Anderson (Executive Officer)**	Transport alternatives would allow for dignified transition between driving and no longer being a license holder. Starting with using PT services for some trips like the hospital or shopping in town and retaining the car for recreational visits. On demand buses seemed a very good fit, with small groups able to socialise on journeys.	Lack of options after losing license has massive impact on the elderly's social, mental and physical health.		Many elderly will not use the Coastal walkway due to poor experience sharing with bikes and other wheeled modes.	
North Taranaki Cycling Advocates Written Submission		Our car-centric transport network cuts people off from employment opportunities, basic needs, and community involvement.	Investigating road freight shift to alternative modes. Reprioritising our streets so everyone can use them.	Our existing cycling facilities are also poorly connected, often ending suddenly and not connecting to other facilities and destinations. The existing cycling facilities in our district do not feel safe for many people, and cut people off from the	

Community group	Problem Statement 1 Public Transport	Problem Statement 2 Private vehicle reliance	Problem Statement 3 Severance and amenity	Problem Statement 4 Active modes	Other Comments
				option of riding a bike for daily transport.	
Highlands Intermediate **31/08/23**	Supports buses as they are easy and cheap, but the pricing needs to be equitable.			Lots of students walk and cycle. Would like improved safety on the road when cycling in areas on the road where it narrows and there's not much room for biking. Cars do not always stop for them when they are trying to cross the road.	
Inglewood Primary **31/08/23**				Lots of students walk and cycle. Transport choice is important as parents cannot always drive them to school.	
Waitara East Primary School	Liked the idea of fast, comfortable trains for longer trips.			Lots of students walk and cycle.	

Community group	Problem Statement 1 Public Transport	Problem Statement 2 Private vehicle reliance	Problem Statement 3 Severance and amenity	Problem Statement 4 Active modes	Other Comments
01/09/23	Did not like that buses take longer than a car to get to places and are not always comfortable.				
Youth (Zeal) **02/08/23** **3 x youth partcipants**	Buses run late when it is busy on the roads. This can cause passengers to arrive late, which is an issue for youth who expect them to be home by a certain time.		It's hard to get from A to B as often the most direct route is unsafe or too busy. Young people often find a longer but perceived safer route.	Cycling is difficult when cycle lanes disappear at intersections.	
Ngā Kaitiaki Feedback	Commuter trains	Isolated communities need to drive because there is no other option. Make sure there is no gridlock in growth areas. Connecting the district, not just to New Plymouth.	Build connections around the assets (maunga, coast, awa) Ring road might stop business in the CBD. Extend free parking for elderly.	Safety Improvements hinder the flow of traffic. Safe and connected routes for mobility scooters.	Where is the space for mana whenua stories to be told? Destinations? Rest stops that have story telling. Higher bridges to minimise impact from major flooding.
National Road	As you increase public reliance on public transport		New Plymouth is likely to see an increase in	We have concerns regarding raised safety	

Community group	Problem Statement 1 Public Transport	Problem Statement 2 Private vehicle reliance	Problem Statement 3 Severance and amenity	Problem Statement 4 Active modes	Other Comments
Carriers Association **23/08/23** **James Smith (GM Policy and Advocacy)**	walking and cycling you will need to ensure that the ability of those people to buy groceries and other essentials is maintained.		truck traffic as a result of modal shift.	crossings (page 7) as they impose a 24/7 restriction onto a transport corridor to cater for, in most cases, a low number of uses.	
NPDC Connecting our place	Improve public transport network access and travel times. Connect public transport routes to key destinations. Priority lanes for buses and carpooling	Reduce private vehicle reliance. Positive impact on local centres, network productivity & utilization. Improve multi-modal access for communities outside of New Plymouth.	Reprioritise our streets so everyone can use them. Change New Plymouth one-ways to two way use (freight to use outer state highway). Fewer main roads through the centre of New Plymouth.	Improve the safety & attractiveness of active mode networks for all users (e.g. children). Raised safety crossings. Intersection upgrades prioritising active modes.	Connect the cycle network to tourist destinations.
Kiwirail **27/07/23** **Mike Brown (Group Manager**			Rail Freight will only be more attractive if roads are disincentivised.		

Community group	Problem Statement 1 Public Transport	Problem Statement 2 Private vehicle reliance	Problem Statement 3 Severance and amenity	Problem Statement 4 Active modes	Other Comments
Planning and Land Use)					
2022 NPDC 12 month report	How do you travel to school? 45% car and only 27% active mode, with 25% bus Would you consider taking an alternative mode of transport (eg: walk, bike, bus, etc), at least once a week to help reduce carbon emissions? Only 32% said yes				
Federated Farmers Submission to NPDC **30/08/23**	The Council must recognise that rural people have no choice but to use personal vehicles on public roads to reach their destinations. Rural communities suffering the "tyranny of distance" there is often little realistic alternative to current roading usage, particularly for private vehicle transport.	Maintaining the rural road network is also important from a social perspective, connecting rural people to neighbours and communities, and connecting isolated rural communities to education, social and emergency services and other basic needs. Directing the funding burden towards those		The considerable distances separating rural communities from amenities render alternative transport options impractical, diminishing the potential utility of an active transport network for our members.	There is also an ongoing need to invest in upgrading infrastructure, particularly roads, bridges and culverts and drains, for improved safety and resilience in severe weather events.

Community group	Problem Statement 1 Public Transport	Problem Statement 2 Private vehicle reliance	Problem Statement 3 Severance and amenity	Problem Statement 4 Active modes	Other Comments
		who benefit the most from public transport services, we promote a system that allocates resources responsibly, ensuring that financial support aligns with the actual utilisation of the service.			Existing roads, bridges, and culverts in rural areas are often inadequate. Many rural roads were not designed to handle today's larger farm equipment and increased traffic. They lack sufficient width and load capacity. Bridges and drainage infrastructure also frequently have capacity and safety issues
FENZ (New Plymouth) **26/09/23** **Keith Murphy (Fire**	An opportunity for PT uptake to reduce the number of vehicle crashes caused by a lack of alternative transport.	Arterial route congestion causes delays for fire appliances, especially for places like Bell Block.	Concerned that street narrowing, or street furniture, will restrict access for fire appliances.	An opportunity for active mode uptake to reduce the number of vehicle crashes caused by a lack of alternative transport.	

Community group	Problem Statement 1 Public Transport	Problem Statement 2 Private vehicle reliance	Problem Statement 3 Severance and amenity	Problem Statement 4 Active modes	Other Comments
Station Commander)					
Centre City Business Owners **14/09/23** **Richard Tait (Property Manager)**		Not supportive of discouraging people from working in the city centre as it will harm retail activities.	Supports moving freight away from the city centre. Would like to see New Plymouth City better connected to the sea with changes to SH44.	Supportive of end of trip facilities for cyclists.	
Port Taranaki **19/09/23** **Ross Dingle (Head of Commercial)**		Supports the increased use of rail but notes it is perceived as less efficient by the haulage industry.	Supports moving freight away from the city centre and creating streets for active modes. Concerned that street narrowing, or street furniture, will restrict access for large vehicles, including wind turbines.		

J

Appendix J – Risk Register

Number	Source of Risk	Short description	Description	Assigned to	Inherent Risk Rating	Residual Risk Rating	Treatment Option	Current Treatment	Additional Treatments (Future)	Residual Risk Likelihood	Residual Risk Consequence	Inherent Risk Likelihood	Inherent Risk Consequence	Updated	Updated by
RSK0001600	People and knowledge	Community doesn't agree/accept the Integrated Transport Plan	Due to a lack of public consultation there is a risk of the Integrated Transport Plan not being accepted by the community which could lead to the ITP needing to be reworked or delay to the sign off of the plan until there is community buy in.	Mikaela Addy	High	Low	Reduce	Public Consultation is scheduled for July 2023 and multiple methods will be used to ensure we reach the wider public. Stakeholder engagement will also be done throughout the project to ensure that we understand they type of feedback we may get from public consultation.	Further communication and updates on NPDC website about the progress and impacts, benefits realisation and KPIs achieved by the ITF.	Possible	Minor	Moderate	Major	05.12.2023 16:44:43	DENISE.HOUSTON@npdc.govt.nz
RSK0001602	Governance/Reputation/Legislative compli	Elected Members do not support the ITF	Due to poor engagement with Elected Members there is a risk of Elected Members not supporting or signing off the ITF which could lead to a project delay until Elected Members support or cancellation of the project	Mikaela Addy	High	Medium	Reduce	Bring Elected Members on the journey for development of the ITP so the support the project through out and not surprised of the content.	Redraft the ITF according to direction from EMs.	Possible	Moderate	Moderate	Major	05.12.2023 16:47:21	DENISE.HOUSTON@npdc.govt.nz
RSK0001603	Project/quality management	Consultants are unable to support the PBC or Modelling work	Due to lack of availability or capability of consultants there is a risk that no consultant(s) would be able to produce the programme business case (PBC) or the modelling work to support the ITP which could lead to a project delay or pressure on NPDC staff to produce the work and quality of work may not be up to the standard of what the consultants could produce. There is also time pressure for the work to be produced so there is increased risk that no consultants would be available to produce the work we need to inform the LTP.	Mikaela Addy	Medium	Medium	Accept	Procurement of the PBC and Modelling work was done separately with an open tender on tender link to attract as many consultants as possible.		Moderate	Moderate	Moderate	Moderate	05.12.2023 16:48:01	DENISE.HOUSTON@npdc.govt.nz
RSK0001604	Governance/Reputation/Legislative compli	Iwi / Hapu do not support ITP	Due to lack of engagement / capability/ capacity of Iwi/Hapu there is a risk of Iwi/Hapu not supporting the ITF which could lead to Elected Members/Community not suporting the ITP and project getting cancelled.	Mikaela Addy	High	Medium	Reduce	Active engagement with Iwi /Hapu to ensure that they are taken on the journey and support the ITP throughout the project lifecycle. Sarah Mako is currently on the Governance Group (although this is being reviewed to ensure that we have the most appropriate person)		Possible	Major	Moderate	Major	05.12.2023 16:49:22	DENISE.HOUSTON@npdc.govt.nz
RSK0001605	Governance/Reputation/Legislative compli	The ITF doesnt align with current strategies	Due to a misalignment of information in the ITF there is a risk that the ITF does not have the same messaging of other strategies which could lead to Elected Members or community not supporting the ITF leading to project cancellation. Information that the ITF needs to align with are National and Regional strategies already in place/in progress, political motives, current projects already in progress etc.	Mikaela Addy	High	Medium	Reduce	Governance Group which includes Waka Kotahi, TRC and Iwi representatives to ensure an overview of what is happening regionally and nationally. Ensure that there is good research being completed for the project to ensure there is alignment of information.		Possible	Major	Likely	Major	05.12.2023 16:51:21	DENISE.HOUSTON@npdc.govt.nz
RSK0001606	Governance/Reputation/Legislative compli	ITP doesn't align to VKT requirements	Due to VKT requirements set out by the ministry of transportation there is a risk that the ITP doesn't align to these requirements which could lead to a lack of funding for future projects.	Mikaela Addy	Medium	Medium	Reduce	Engagement with VKT experts at Waka Kotahi to ensure that the ITP is aligned.		Possible	Moderate	Moderate	Moderate	05.12.2023 16:52:21	DENISE.HOUSTON@npdc.govt.nz
RSK0001607	Governance/Reputation/Legislative compli	Not being able to deliver what is expected from the project	Due to other risks associated with the project there is a risk of the project not being delivered which could lead to reputational risk to NPDC or project team	Mikaela Addy	Medium	Insignificant	Reduce	Governance Group has been set up with regular monthly meetings to reduce the risk.		Possible	Low	Moderate	Moderate	05.12.2023 16:53:36	DENISE.HOUSTON@npdc.govt.nz
RSK0001608	Project/quality management	Misalignment with Waka Kotahi	Due to poor project management and lack of engagement with Waka Kotahi there is a risk of the ITP not aligning with Waka Kotahi which could lead to a lack of funding from Waka Kotahi for future projects.	Mikaela Addy	Medium	Medium	Reduce	Waka Kotahi will be involved in the project team and Sarah Downs (regional manager for Waka Kotahi) is on the governance group.	Peer Review as requested from Waka Kotahi has been completed and states that the PBC meets WK requirements.	Unlikely	Major	Unlikely	Major	05.12.2023 16:55:08	DENISE.HOUSTON@npdc.govt.nz
RSK0001609	Governance/Reputation/Legislative compli	Project Governance doesn't align with other organisations	Due to the project having multiple organisations at key stakeholders there is a risk that the project governance doesn't align with other organisations which could lead to the project not being accepted by these organisations	Mikaela Addy	Medium	Medium	Reduce	Project Governance contains members from NPDC, TRC, Waka Kotahi and Te Atiawa with Kevin Strongman being chair to ensure there is alignment.		Possible	Moderate	Moderate	Moderate	05.12.2023 16:56:27	DENISE.HOUSTON@npdc.govt.nz

Number	Source of Risk	Short description	Description	Assigned to	Inherent Risk Rating	Residual Risk Rating	Treatment Option	Current Treatment	Additional Treatments (Future)	Residual Risk Likelihood	Residual Risk Consequence	Inherent Risk Likelihood	Inherent Risk Consequence	Updated	Updated by
RSK0001610	Governance/Reputation/Legislative compli	Lack of community engagement or understanding	Due to poor community engagement or a lack of understanding of the messaging of the ITP there is a risk that the community does not support the ITP which could lead to Elected Members no longer supporting the ITP	Mikaela Addy	High	Low	Reduce	Applying different community engagement methods to ensure we reach a good consensus of the population of the district with clear messaging on what we are trying to achieve.		Possible	Minor	Moderate	Major	05.12.2023 16:59:06	DENISE.HOUSTON@npdc.govt.nz
RSK0001611	People and knowledge	Lack of internal resources	Due to staff changes there is a risk that there is not enough staff with appropriate knowledge to be part of the project team which could lead to schedule delays and/or a poor quality of ITP.	Mikaela Addy	Medium	Medium	Accept	Ensure resources are managed to ensure there is enough knowledge within the project team and look externally if there is no one in NPDC that is needed.		Moderate	Moderate	Moderate	Moderate	05.12.2023 17:00:01	DENISE.HOUSTON@npdc.govt.nz
RSK0001612	Project/quality management	ITP doesn't allow for growth	Due to poor project management there is a risk of growth not being accurately included in the ITP which could lead to the ITP not being accepted by stakeholders.	Mikaela Addy	Medium	Low	Reduce	Juliet Johnson is considered an unofficial Business Owner for the project to ensure that growth is incorporated into the project and is also on the governance group. There will also be a planning team member in the project team.		Unlikely	Moderate	Moderate	Moderate	05.12.2023 17:01:11	DENISE.HOUSTON@npdc.govt.nz
RSK0001855	Project/quality management	Time constraints and volume of project work results in missing deadlines.	Due to the short amount of time allocated and the large volume of work to be completed there is a risk of ITF/PBC/Model not being read/ reached qualityy standard required which could lead to the missing deadlines for Governance processes.	Denise Houston	Medium	Low	Accept	Schedule is transparent and interdependencies are clear. PM to monitor the timeframes and notify of any potential for slippage.	At slippage points PM will communicate with Project Delivery Team and Project Governance to resolve and address any issues.	Possible	Minor	Likely	Minor	05.12.2023 17:03:21	DENISE.HOUSTON@npdc.govt.nz
RSK0001924	Financial	External funding requirements	Due to affordability, alternative funding sources might need to be pursued. In such cases, the specific procurement obligations of these diverse funding entities will have to be accommodated.	Denise Houston	Medium	Medium	Accept	Accept this while the specifics of this are unknown.	Collaborate with external funding bodies aligned witht the outcomes and objectives of the ITF.	Almost certain	Minor	Almost certain	Minor	05.12.2023 17:04:58	DENISE.HOUSTON@npdc.govt.nz
RSK0001925	Planning and Strategy	Growth in population and employment may be lower or higher than forecast	Due to growth being a key driver of transport demand there is a risk of underestimation or overestimation of growth which could lead to the need for changes to the network may be more or less urgent that forecast.	Denise Houston	High	Medium	Reduce	Modelling undertaken based on most recent data available.	•The growth forecast will be updated with each LTP round •Programming or sequencing of interventions will be informed by monitoring and reforecasts Projects delivererd will be required to do their own detailed business cases with their own credible data supplied for the strategic case.	Possible	Moderate	Likely	Moderate	05.12.2023 17:06:35	DENISE.HOUSTON@npdc.govt.nz
RSK0001927	Planning and Strategy	Funding priorities for local or central government may change over time	Due to the priorities for funding transportation projects for Local Authorities and the Government changing there is a risk the preferred programme may not reflect funding priorities, and the programme may not deliver benefits if only partially implemented.	Denise Houston	High	High	Accept	•The programme has some flexibility to adjust to priorities, but the impacts would be assessed, and funding decision makers advised accordingly •Low risk / low-cost interventions respond to funding priorities quicker, these can be sequenced earlier •Major infrastructure interventions require DBC or IBC to advise precise sequencing and trigger points	The Framework would need to be revised to reflect government funding priorties as and when these are announced.	Likely	Moderate	Likely	Moderate	05.12.2023 17:23:47	DENISE.HOUSTON@npdc.govt.nz
RSK0001928	Operations and Service Delivery	Risk of falling behind operational demand.	Due to major Infrastructure within the Preferred Programme will have long lead times for planning and consenting processes and high costs, there is a risk of Planning and implementation falling behind the transport demand which could lead to or not addressing the problems or opportunities in a timely manner.	Denise Houston	Medium	Medium	Accept	•Major infrastructure interventions require DBC or IBC to advise precise sequencing and trigger points •Ongoing collaboration and integrated business case development, design, consenting and implementation Risks and consequences of delay should be included in demands and business cases.	National GPS may address some issues.	Possible	Major	Possible	Major	05.12.2023 17:24:01	DENISE.HOUSTON@npdc.govt.nz
RSK0001929	Planning and Strategy	Land use changes fail to eventuate.	Due to The Preferred Programme assuming complementary land use changes e.g. district plan medium density zoning, there is a risk of these not eventuating which could lead to The opportunity to leverage investment in the transport system to support denser urban development being lost	Denise Houston	Medium	Medium	Accept	•Decision points prior to implementation of major infrastructure (or LOS increases) will reflect / monitor land use policy •Ongoing collaboration and integrated business case development, design, consenting and implementation	Revision of the ITF in line with land use constraints.	Possible	Major	Possible	Major	05.12.2023 17:24:19	DENISE.HOUSTON@npdc.govt.nz

Number	Source of Risk	Short description	Description	Assigned to	Inherent Risk Rating	Residual Risk Rating	Treatment Option	Current Treatment	Additional Treatments (Future)	Residual Risk Likelihood	Residual Risk Consequence	Inherent Risk Likelihood	Inherent Risk Consequence	Updated	Updated by
RSK0001930	Operations and Service Delivery	Opposition to project delivery	Due to Lack of community support resulting from opposition to potential intervention impacts e.g. loss of parking there is a risk of Key elements in the programme being put on hold or not accepted which could lead to undermining the effectiveness of the programme as a whole.	Denise Houston	High	Medium	Reduce	•Ongoing collaborative and integrated project or business case development, design, consenting and implementation •Allow sufficient time for early engagement with Councillors, the public and key stakeholders so they are informed of the impacts on the programme at design, consenting and implementation phases •Leverage from previous project successes to maintain support e.g. exemplar projects		Moderate	Moderate	Likely	Major	05.12.2023 17:24:56	DENISE.HOUSTON@npdc.govt.nz
RSK0001931	Operations and Service Delivery	Disruption to the transport system during construction phases of major projects	Due to significant nature of the project change on major strategic assets there is a risk of disruptions such as the closure of lanes or temporary/permanent loss of parking may impact the business / public community which could lead to loss of productivity and negative perception of the projects.	Denise Houston	High	Medium	Reduce	•Ongoing engagement with Councillors, business owners, the public so they are informed of the traffic management plan during construction •Give priority to maintaining the performance of the network or provide alternatives e.g. buses on parallel routes		Moderate	Minor	Almost certain	Moderate	05.12.2023 17:25:37	DENISE.HOUSTON@npdc.govt.nz
RSK0001932	Financial	Significant cost of the preferred programme	Due to significant cost of the preferred programme there is a risk of Limited ability to invest in transport projects outside the Preferred Programmewhich could lead to opportunity loss.	Denise Houston	Medium	Medium	Reduce	•The preferred programme is flexible to changing demands e.g use other interventions to delay the need for some elements later in the programme (refer Waka Kotahi Investment Hierarchy) •Major infrastructure interventions require DBC or IBC to advise precise sequencing and trigger points •Investigate other sources of funding e.g. CERF funding, development contributions, targeted rates, PPPs, etc	GPS is likely to influence how the projects in the preferred programme are priotitised/scoped.	Moderate	Minor	Possible	Major	05.12.2023 17:26:55	DENISE.HOUSTON@npdc.govt.nz
RSK0001934	Financial	Actual project costs are greater than forecast and exceed allocated budgets	Due to unforeseen cost escalation there is a risk of cost increases such as geo-tech conditions, cost inflation, natural hazards. which could lead to budgets being exceeded.	Denise Houston	High	High	Reduce	•Undertake robust risk identification as part of cost estimation during business case phases •Use of risk adjusted forecasting as part of the budgeting process. •Value design or trials to test need for permanent infrastructure		Moderate	Major	Likely	Major	13.10.2023 13:30:07	DENISE.HOUSTON@npdc.govt.nz
RSK0001935	Governance	LTP Budget Restrictions limits access to funding the programme	Due to cost constraints there is a risk of not receiving funding for the preferrred options which could lead to postponement of the programme to a future LTP cycle, which could render the ITF out of date and requiring revision before implementation starting.	Denise Houston	High	High	Accept	Currently discussing with Management Accounting Team and Manager Transportation to identify whether there is scope to include the programme in some iteration in the LTP within or after years 1-3.	Apply for future LTP.	Likely	Moderate	Likely	Moderate	05.12.2023 17:28:45	DENISE.HOUSTON@npdc.govt.nz
RSK0001939	Planning and Strategy	New Government changes the Goverment Policy Statement on Transport	Due to..a new government being elected.. there is a risk that the Government Policy Statement on Transport could change significantly which could lead to the requirement to rework the ITF to reflect new government policy priorities.	Rui Leitao	High	High	Accept	Accept this is likely and maintain awareness of policy decisions prior to commissioning work on the preferred programme.	Use the DBC and feasbility process to establishe whether the preferred interventions meet the need of the GPS	Likely	Moderate	Likely	Moderate	05.12.2023 17:30:10	DENISE.HOUSTON@npdc.govt.nz
RSK0002020	Financial	Preferred programme is unaffordable	Due to high cost of major infrastucture projects and land acquistion there is a risk that the preferred programme is unaffordable which could lead failure to deliver projects and benefits not being realised.	Denise Houston	High	Medium	Accept	The preferred interventions will be phased and delivered according to the WK intervention hierarchy. This places large infrastructure projects last. This give time to plan detailed business cases to confirm benefits and ensure required funding is available. If determined unaffordable alternative options can be considered.		Moderate	Moderate	Likely	Major	27.11.2023 10:44:14	DENISE.HOUSTON@npdc.govt.nz