

REGIONAL MODE SHIFT PLAN GREATER CHRISTCHURCH

Keeping our region and our people moving





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EXECUTIVE SUMMARY

The Greater Christchurch Partnership promotes an integrated and intergenerational approach to planning for urban growth and seeks to ensure managed development that protects environments, improves transport links, creates liveable areas and sustainably manages population growth.

The *Regional mode shift plan: Greater Christchurch 2020* (the plan) provides the first step towards achieving this vision. It is a living document that will be updated and refreshed dependent on situational change and it will be integrated into the wider strategic planning of Greater Christchurch 2050. The partners readily acknowledge that there is much work to do in this space and we look forward to delivering on that challenge.

Christchurch, the largest city in the South Island, has experienced high population and economic growth. The population of Greater Christchurch is predicted to increase from 428,000 in 2013 to approximately 640,000 people by 2048. The COVID-19 pandemic makes it challenging to accurately forecast future growth however, it is estimated that growth may slow in the short term and continue to grow substantially over the medium to longer term.

Past land use and transport investment decisions have encouraged high levels of private car use with consequentially low uptake of public transport. This has caused increasing traffic congestion, rising emissions, reduced amenity and has resulted in increased safety risks and poor health outcomes for local communities.

In recent years there has been significant investment in building major cycle routes across Greater Christchurch. These routes connect the districts and the city and urban cycleways, and they help to ensure people can cycle locally more safely. As a result, the number of cyclists has increased and is expected to continue to grow. This increase clearly demonstrates that provision of alternative transport options can provide a path forward to improve travel choice, reduce emissions and improve general health and wellbeing of the population.

Keeping cities moving is the national mode shift plan of Waka Kotahi NZ Transport Agency. This plan follows the national overarching principles within that document and identifies projects that contribute towards the following three levers and the subsequent five focus areas.

LEVERS	1. Shaping urban form	2. Making active and public transport more attractive*	3. Influencing travel demand and transport choices
FOCUS AREAS	<p>1. Enable, support and encourage housing, business growth and public facilities in areas with sustainable travel options.</p> <p>2. Ensure the layout and design of urban areas supports public transport, walking and cycling.</p>	<p>3. Encourage the uptake of public transport through investment in infrastructure and services to make public transport more attractive.</p> <p>4. Encourage the uptake of walking and cycling through investment in infrastructure and services to make active modes safer and more attractive.</p>	<p>5. Make sure it is safe, easy and intuitive for people to change to sustainable modes.</p>

* The wording used in the national plan is *Making shared and active modes more attractive* – the clear focus in Greater Christchurch is on public transport and active transport, so the wording has been amended to reflect that for the purposes of this plan

Several major initiatives to achieve these focus areas are already underway, with the most significant being completion of the Christchurch Major Cycleways programme and development of the Public Transport Futures programme. Together, these investments in cycling and public transport will make a transformational improvement to travel choice in Greater Christchurch. In addition to these major initiatives, this plan further identifies the following three priority packages for implementation in the short-term (3-6 years):

- **Package 1 – Connecting the cycleways:** filling in critical gaps in the cycleway network to enable end-to-end journeys to be undertaken safely, supporting more residents to travel by bike and e-bike. Indicative cost: \$22m.
- **Package 2 – Public transport service improvements:** delivering several short-term opportunities to encourage greater use of public transport. Indicative cost: \$10m (pending Public Transport Futures detailed business cases).
- **Package 3 – Encouraging behaviour change:** The Travel Demand Management Business Case identified a programme of activities to implement integrated behaviour change programmes alongside major capital investment in Greater Christchurch. Indicative cost: \$2 to 3m

Bold decision-making is needed to address the major barriers to uptake of sustainable transport/travel modes. Delivering this plan will also require significant ongoing investment, with current investment plans not sufficient.

This mode shift plan will be reviewed at least every three years, ahead of the Regional Land Transport Plan and Long-Term Plans, to evaluate further priority packages for implementation. However, the partners recognise that an initial review is required soon to capture the transformational changes being investigated as part of the Public Transport Futures work programme and Greater Christchurch 2050.

1. INTRODUCTION

The Greater Christchurch Partnership is tasked with promoting an integrated and intergenerational approach to planning for urban growth and seeks to ensure that development is managed in a manner that protects environments, improves transport links, creates liveable areas and sustainably manages population growth.

This mode shift plan is the first step towards achieving our vision and will be integrated into the wider strategic planning of Greater Christchurch 2050.

1.1. PURPOSE

The purpose of the plan is to:

- outline the context for, and the importance of, mode shift in Greater Christchurch
- identify the challenges in achieving mode shift, including funding constraints, and observations from work that is currently underway
- plan to support and accelerate mode shift by identifying key areas where central and local government need to work together on developing funding strategies
- propose the initial priorities to implement this plan.

This plan will be reviewed at least every three years, ahead of the Regional Land Transport Plan and Long-Term Plans. These reviews provide the opportunities for Greater Christchurch to regularly evaluate the most important and efficient ways to achieve and maintain desirable transportation mode share as the population continues to grow.

1.2. REPORT STRUCTURE

Chapter 2 provides the context of mode shift in Greater Christchurch, outlines the national and local plans that support mode shift, as well as the benefit and challenges to achieving the desirable mode shift for Greater Christchurch.

Chapter 3 demonstrates the plan to achieve the desirable mode shift in Greater Christchurch.

Chapter 4 proposes a way forward to implement this mode shift plan in Greater Christchurch.

Appendix 1 provides a glossary and list of acronyms used in this document for reference.

Appendix 2 outlines a mode shift plan in table format.

Appendix 3 outlines priority packages.



2. GREATER CHRISTCHURCH CONTEXT

2.1. POPULATION GROWTH

Christchurch is the largest city in the South Island and has been experiencing high population and economic growth. Approximately 80% of the Canterbury regional population, and 40% of the South Island population, live in Greater Christchurch. Due to its size and geographical location, Greater Christchurch plays a significant role in the South Island economy.

Christchurch is a major freight hub with connections to Lyttelton Port and the Christchurch International Airport.

The population of Greater Christchurch is predicted to increase from 428,000 in 2013 to approximately 640,000 by 2048.¹ The COVID-19 pandemic has created uncertainty around future growth and travel patterns. However, based on previous recovery patterns, it is anticipated that the rate of growth may be slower in the short term followed by a substantial increase in the medium to long term.

2.2. TRAVEL PATTERNS AND BEHAVIOURS

Private vehicle

There is a significant reliance on private vehicle travel throughout Greater Christchurch. Table 1 below demonstrates the high use of private vehicles in Greater Christchurch for travel to work, compared to other modes.²

TABLE 1: JOURNEY TO WORK, BY MODE (USUAL RESIDENT TERRITORIAL AUTHORITY)

MODE	CHRISTCHURCH CITY		SELWYN DISTRICT		WAIMAKARIRI DISTRICT	
	number	percent	number	percent	number	percent
WORK AT HOME	18,000	9%	5,600	16%	4,300	13%
DRIVE A PRIVATE CAR, TRUCK OR VAN	122,900	62%	20,900	60%	19,500	62%
DRIVE A COMPANY CAR, TRUCK OR VAN	22,500	11%	5,500	16%	5,300	17%
PASSENGER IN A CAR, TRUCK, VAN OR COMPANY BUS	6,400	3%	800	2%	900	3%
BICYCLE	11,200	6%	500	1%	300	1%
WALK OR JOG	7,700	4%	1,000	3%	800	2%
PUBLIC BUS	8,300	4%	300	1%	300	1%
TRAIN/FERRY	89	0%	9	0%	6	0%
OTHER	2,400	1%	500	1%	300	1%
TOTAL	199,500	100%	35,100	100%	31,700	100%

1. Our Space 2018-2048 Greater Christchurch Settlement Pattern Update Whakahāngai O Te Hōrapa Nohoanga - Greaterchristchurch.org.nz/assets/Documents/Greaterchristchurch/Our-Space-final/Our-Space-2018-2048-WEB.pdf

2. Census 2018.

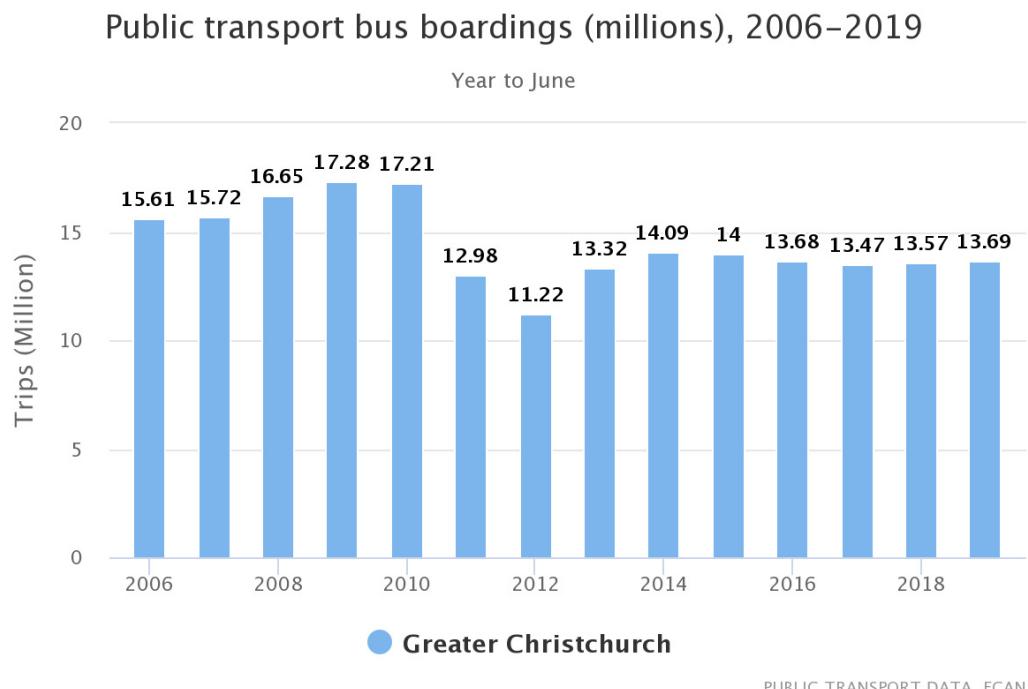
Table 1 also demonstrates that approximately 10% of workers work from home. This table also represents people who chose not to travel on the day of the survey.

Following the experience of working from home during the COVID-19 lockdown, there may be more workers who choose to work from home in the future, thereby reducing overall peak time trip numbers. This could be an unintended, yet positive, consequence of the lockdown.

Public transport

Public transport has relatively low use compared to other modes. The public transport system currently services about 2.5% of peak hour travel demand in Greater Christchurch, which equates to 13.5 million passenger trips per year. Patronage peaked at 17.2 million trips per year in 2010, but 2011 patronage levels dropped by over 40% immediately post-earthquake. This drop was largely due to the post-earthquake shift of residents and businesses away from the central city. Public transport patronage in Greater Christchurch has recently stabilised, but it is still well below the levels experienced prior to the Canterbury earthquakes as shown in Figure 1 below.

FIGURE 1: PUBLIC TRANSPORT BOARDINGS IN GREATER CHRISTCHURCH BETWEEN 2006 AND 2018³



Over recent years, Greater Christchurch councils have implemented some successful interventions that achieved positive mode shifts. These include:

- Park and Ride with Bus Service 85 non-stop between Rolleston and Christchurch CBD, with more park and ride sites planned to be developed at Rolleston and Lincoln.
- ‘MyWay by Metro’ pilot of an on-demand bus service in Timaru undertaken by Environment Canterbury. The learnings from this pilot will be used to consider opportunities in Christchurch.

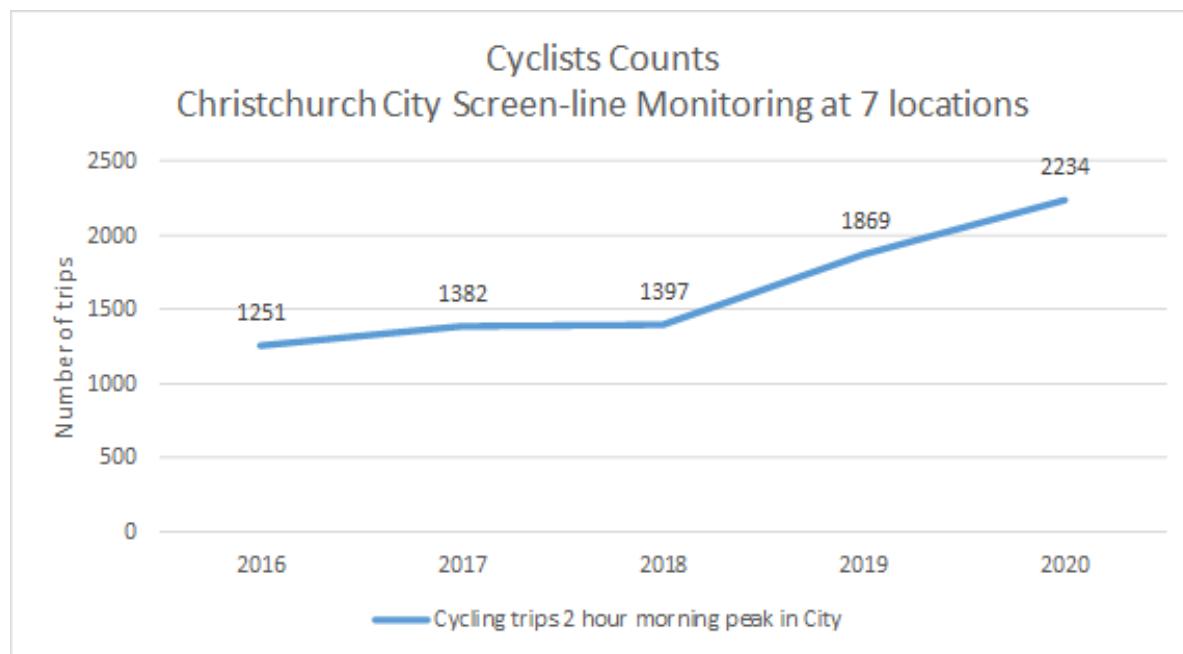
3. <https://www.Greaterchristchurch.org.nz/indicators/urban/public-transport>

Cycling

Nationally Christchurch city is known as New Zealand's cycling city. In the 2018 census data, there were 5.6% of people whose main means of travel to work in Christchurch city was by bicycle. There were 9.1% of people whose main means of travel to education in Christchurch city was by bicycle.⁴ Significant investment has taken place across Greater Christchurch to build major cycle routes connecting the districts and the city, as well as urban cycleways, to help ensure people can cycle locally, more safely.

The benefits of that investment are captured by data, collected by Christchurch city, that shows the number of trips by cyclists in the central city has increased significantly in the last two years and the proportion of women cycling in Christchurch city has increased from 31% in 2016 to 41% in 2020.⁵

FIGURE 2: CYCLE COUNTERS MONITORING – CENTRAL CHRISTCHURCH



2.3. CHALLENGES

Keeping cities moving, the national mode shift plan of Waka Kotahi, identifies the following three reasons as underlying New Zealand's high level of car dependency:

- Cities are structured in a way that prioritises travel by car: New Zealand's cities are characterised by low-density, dispersed and uncoordinated development meaning that trips are often long (making walking and cycling unattractive) – urban planning and street design guides have generally prioritised private vehicles over other modes – poor integration between land use and transport decision-making has often led to mismatches between where growth happens and where better travel choices are available or provided.
- A lack of good shared and active travel alternatives: Decades of under-investment in quality services and infrastructure for public transport, walking and cycling has often made these travel options slower, less reliable, more dangerous and ultimately less attractive than travelling by private vehicle.

4. <https://www.stats.govt.nz/tools/2018-census-place-summaries/christchurch-city>

5. Christchurch City Council Cycle Surveys

- Incentives encourage people to continue to travel by car: many of the true costs of travelling by car are hidden, especially environmental effects and car parking. Even where safe and attractive alternatives exist, awareness of these options can be low.

These challenges are evident in the Greater Christchurch context. The draft Greater Christchurch Travel Demand Management Single Stage Business Case (TDM SSB) outlines the problem as follows:

Land use and transport investment decisions in historical and recent times has encouraged high levels of car usage, resulting in increasing congestion, rising emissions, reduced amenity, safety risks and poor health outcomes for local communities.

Supporting evidence for this problem statement and consequences is provided in the TDM SSB and is not repeated here. Historical under-investment in active and public transport has compromised the relative attractiveness of sustainable modes and supports a continued reliance on private vehicle travel.

Keeping cities moving summarises the consequences of continued reliance on private vehicle travel, combined with population growth and rapidly increasing transport demand, as follows:⁶

- Limited travel choice that requires people to spend a significant and increasing part of their income on private vehicle use, and poor connections to social, health and economic opportunities.
- Growing congestion that leads to longer and less reliable travel times, and urban areas that need to dedicate large amounts of land and resources to moving and storing vehicles.
- Growing vehicle emissions which contribute to the global challenge of climate change, and negative ecological impacts from construction and operation of roading infrastructure.
- Increasing numbers of transport-related deaths and serious injuries, with a higher risk for ‘vulnerable users’ using active modes.
- More sedentary lifestyles that contribute to increasing levels of obesity and chronic diseases, and transport-related air pollution and noise that can harm public health.

In Greater Christchurch, the key drivers for mode shift are environmental and safety concerns, with congestion as a secondary consideration. This is in contrast to Auckland and Wellington where the mode shift focus from private vehicle travel to active and public transport is on reducing greenhouse gas emissions and easing congestion.

While congestion is not currently an issue in Christchurch to the extent that it is in Auckland and Wellington, people do experience significant delays during peak periods on specific routes as well as difficulties caused by unpredictable travel times. Brougham Street and Cranford Street are examples of streets where there is high transport demand arising from both through traffic and local traffic. This demand impacts customer travel experiences and the safety and amenity of nearby communities.

If current travel patterns continue unchanged, and the population grows as expected, then it is anticipated that vehicle travel will increase by 11% over the next 10 years, and 19% over the next 20 years. This will result in a 25% increase in travel by car to and from the central city in 2038, rising to a 34% increase by 2048. With 87% of household trips made in single occupancy vehicles, the negative impacts of Greater Christchurch remaining so highly car dependent will result in increasing congestion and increasing emissions.

6. Keeping cities moving, above, 12.

Action is needed now. This action must be sustained over the longer term, to avoid Greater Christchurch following in the footsteps of other major centres, where investment in mode shift only occurred once congestion reached crisis point.

2.4. BENEFITS OF MODE SHIFT

Mode shift is an indicator of progress towards several key transport outcomes. These outcomes underpin the potential to create more vibrant and liveable urban environments and improve wellbeing and quality of life.

In 2018 the Ministry of Transport developed a Transport Outcomes Framework. The framework sets out the durable, long-term outcomes the government aims to achieve, through the transport system, to improve intergenerational wellbeing and liveability. Mode shift and reducing car dependency have been assessed as contributing to all five outcomes within the framework as set out in Figure 3 below.

TABLE 2⁷ : CONTRIBUTION OF MODE SHIFT TOWARD TRANSPORT OUTCOMES

OUTCOME	MODE SHIFT CONTRIBUTION
INCLUSIVE ACCESS	Better travel options and a more efficient transport system mean that more people can access social and economic opportunities, especially to ensure that those with disabilities or low incomes can fully participate in society.
ECONOMIC PROSPERITY	More efficient movement of people and products, including to large and highly productive employment centres, can reduce costs and boost income levels, as well as unlocking urban development opportunities.
ENVIRONMENTAL SUSTAINABILITY	An increase in public transport and active modes reduces pressure on natural resources and reduces carbon emissions from the vehicle fleet, while more efficient use of land (given reduced demand for roads) lessens the impact on biodiversity and water.
HEALTHY AND SAFE PEOPLE	Greater use of active modes promotes physical activity. Public transport is a very safe way to travel, and having fewer vehicles reduces crashes, noise and harmful emissions, all of which increase public health benefits.
RESILIENCE AND SECURITY	Providing more transport choice means a greater range of alternative travel options is available in the face of short- and long-term disruption to the transport system.

Achieving mode shift aligns with a range of national and regional strategic outcomes

The Government set a target of net zero emissions by 2050. Environment Canterbury and Christchurch City Council declared climate emergencies in 2019, with Christchurch city setting a target of net zero emissions by 2045. Land transport currently accounts for 41% of

7. <https://www.nzta.govt.nz/assets/resources/keeping-cities-moving/Keeping-cities-moving.pdf>

greenhouse gas emissions in Greater Christchurch. The shift to using more active and public transport options would reduce emissions and contribute to achieving these targets.

Road to Zero⁸ is a national road safety strategy with a target to reduce deaths and serious injuries on our roads by 40% by 2030. This strategy includes a national long-term target of zero deaths and serious injuries on our roads. Road to Zero indicates that ‘walking is the second safest mode after buses per hour spent travelling’.⁹

An increase in the use of public transport will reduce traffic volumes in our urban areas, and the shift to more walking and cycling will promote a sense of place in our urban areas. Encouraging the use of active and public transport will enable priority to be given to more vulnerable road users, making it safer for people to connect within their communities.

The national health strategy aims for ‘all New Zealanders to live well, stay well, get well, in a system that is people-powered, provides services closer to home, is designed for value and high performance, and works as one team in a smart system’. A car dependent environment reduces the attractiveness of walking and cycling and is one of the factors that causes people to have a sedentary lifestyle.

2.5. DEVELOPMENT OF THIS MODE SHIFT PLAN

The following section summarises relevant policy directions and plans which have informed the development of this plan.

National

Recent changes to central government strategy support a renewed focus on mode shift, including:

- An increased focus on travel demand management (TDM) in the Government Policy Statement on Land Transport (GPS) 2018 and GPS 2021.¹⁰
- New emissions targets: The Climate Change Response (Zero Carbon) Amendment Bill 2019 amended the Climate Change Response Act 2002 to provide a framework for New Zealand to develop and implement climate change policies that contribute to global efforts under the Paris Agreement to limit the global average temperature increase to 1.5 degrees Celsius above pre-industrial levels. Key provisions include establishing a Climate Change Commission and setting a target to reduce net carbon emissions to zero by 2050.
- Road to Zero: The national road safety strategy aims to drive substantial improvements in road safety across New Zealand. The strategy acknowledges the safety benefits of public transport, and the need to improve road safety for vulnerable road users, such as cyclists and pedestrians. This is discussed further under the problem statement.
- Waka Kotahi has developed Arataki, its long-term strategy for transport, including its interpretation for Canterbury. Arataki has identified improving urban form and transforming urban mobility as two key step changes. It recognises the focus for the next 10 years on public and active transport.

8. <https://www.transport.govt.nz/multi-modal/keystrategiesandplans/road-safety-strategy/>

9. Road to Zero, 54.

10. The GPS sets out the government’s funding priorities for transport over a 10-year period, with a focus on allocating funding from the National Land Transport Fund over a dedicated three year period.

Keeping cities moving looks to achieve mode shift in three main ways, termed as 'levers'.

Table 3 provides an explanation of the three levers:¹¹

TABLE 3: LEVERS TO DELIVER MODE SHIFT

LEVERS	EXPLANATION
1. SHAPING URBAN FORM	Encouraging good quality, compact, mixed-use urban development will result in densities that can support rapid/frequent transit (and vice versa); shorter trips between home and work/education/leisure; and safe, healthy and attractive urban environments to encourage more walking and cycling.
2. MAKING PUBLIC AND ACTIVE MODES MORE ATTRACTIVE	Improving the quality, quantity and performance of public transport facilities and services, and walking and cycling facilities, will enable more people to use them. This can involve both optimising the existing system (for example, through reallocating road space), investment in new infrastructure and services, and providing better connections between modes.
3. INFLUENCING TRANSPORT DEMAND AND TRAVEL CHOICES	Changing behaviour may also require a mix of incentives and disincentives (or 'push' and 'pull' factors) to either discourage use of private vehicles (by making them less attractive relative to other options) or making people more aware of their options and incentivising them to try something new. This may include parking policies, road pricing, travel planning and education.

Greater Christchurch

Several plans and business cases signal the need for mode shift in Greater Christchurch.

These include the:

- Greater Christchurch Travel Demand Management Strategy and Action Plan (2009)
- Christchurch City Council Transport System Strategic Case (2016)
- Christchurch City Council Transport System Programme Business Case (2017)
- Greater Christchurch Draft Travel Demand Management Detailed Business Case (2018)
- Greater Christchurch Investment Story (2018)
- Draft Greater Christchurch Travel Demand Management Strategic Case (2018)
- Greater Christchurch Travel Demand Management Single Stage Business Case (2020)
- Our Space Greater Christchurch Settlement Pattern 2018-2048 (2019)

¹¹ Above, 6-7.

Current mode shift targets

The partnership is currently working on business cases to influence mode shift, with corresponding targets as illustrated below.

- Public Transport Futures Programme Business Case:
 - Double public transport mode share by 2028 and double again by 2048.
 - Develop an accessible public transport system where 90% of households can use public transport to access one or more Key Activity Centres within 30 minutes by 2028.
- An Accessible City (target for Christchurch city):
 - A healthier, safer city centre that aims to triple cycling and pedestrian movements by 2041.

Currently, the achievement of these aspirations will be monitored and measured through the relative business cases. The partnership acknowledges that, to achieve the desirable mode shift in the long term, further work is required to determine an overall target for Greater Christchurch. This will be integrated in the wider strategic plan of Greater Christchurch 2050.



3. THE PLAN

This section outlines the plan for achieving mode shift in Greater Christchurch. It highlights the three levers identified by Waka Kotahi, (outlined in section 2.5 of this document), and provides associated local context, key focus areas, and work in progress.

At the conclusion of this section, opportunities to accelerate mode shift are highlighted.

3.1. SUMMARY OF GREATER CHRISTCHURCH MODE SHIFT PLAN

The following table provides a summary of the three levers and five focus areas to direct action over the next six years:

TABLE 4: FOCUS AREAS OF THIS MODE SHIFT PLAN

LEVERS	1. SHAPING URBAN FORM	2. MAKING ACTIVE AND PUBLIC TRANSPORT* MORE ATTRACTIVE	3. INFLUENCING TRAVEL DEMAND AND TRANSPORT CHOICES
FOCUS AREAS	<p>6. Enable, support and encourage housing, business growth and public facilities in areas with sustainable travel options.</p> <p>7. Ensure the layout and design of urban areas supports public transport, walking and cycling.</p>	<p>8. Encourage the uptake of public transport through investment in infrastructure and services to make public transport more attractive.</p> <p>9. Encourage the uptake of walking and cycling through investment in infrastructure and services to make active modes safer and more attractive.</p>	<p>10. Make sure it is safe, easy and intuitive for people to change to sustainable modes.</p>

* The wording used in the national plan is *Making shared and active modes more attractive* – the clear focus in Greater Christchurch is on public transport and active transport so the wording has been amended to reflect that for the purposes of this plan.

3.2. SHAPING URBAN FORM

Context

Christchurch has developed into a polycentric city, with several Key Activity Centres formed in a radial pattern around the central business district. The city connects via arterial roads and rail (freight only) to the adjoining Selwyn and Waimakariri districts. Townships within these districts have also developed in a concentric manner.

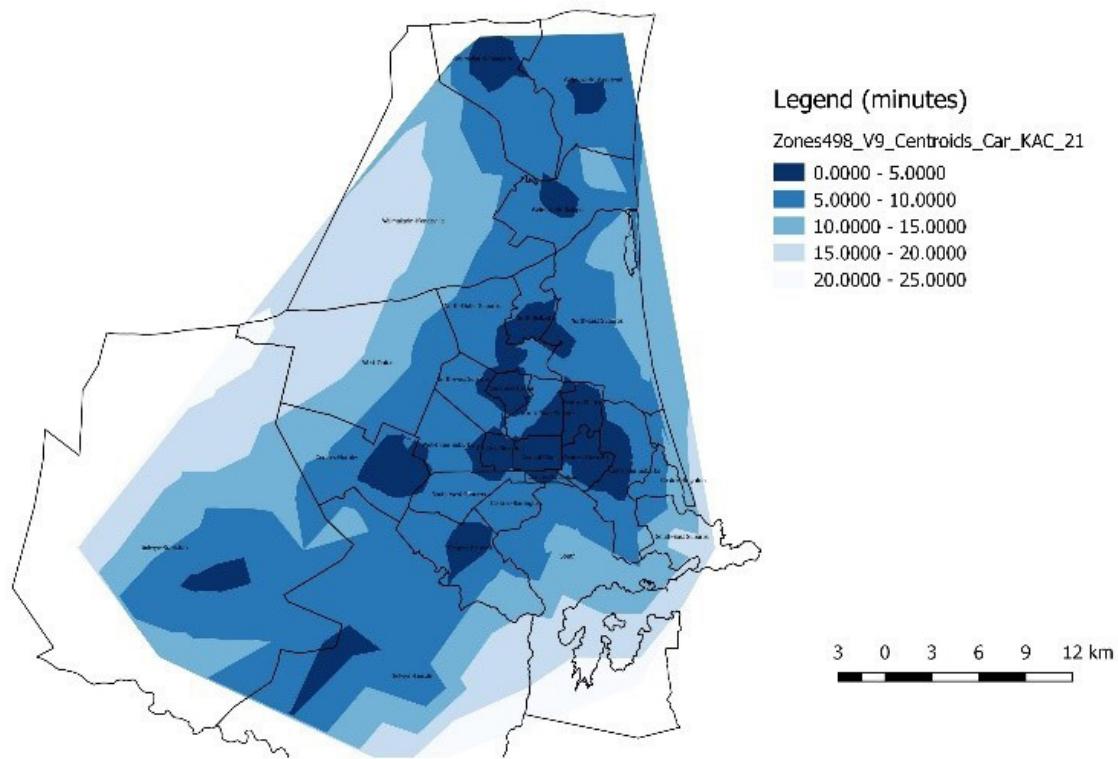
In the early 20th century, urban areas were more compact as they relied primarily on foot, cycling and tram to travel. However, the advent of more affordable private motor vehicle use after World War Two led to a significantly more dispersed urban form.

Major greenfield expansions were planned as part of the Greater Christchurch Urban Development Strategy (implemented through regional and district plan changes) with a greater requirement on meeting housing demand through intensification over time. Due to the Christchurch earthquakes and associated displacement of homeowners in some areas, the expansion into greenfield areas has been accelerated on the western side of Christchurch city and in Selwyn and Waimakariri Districts.

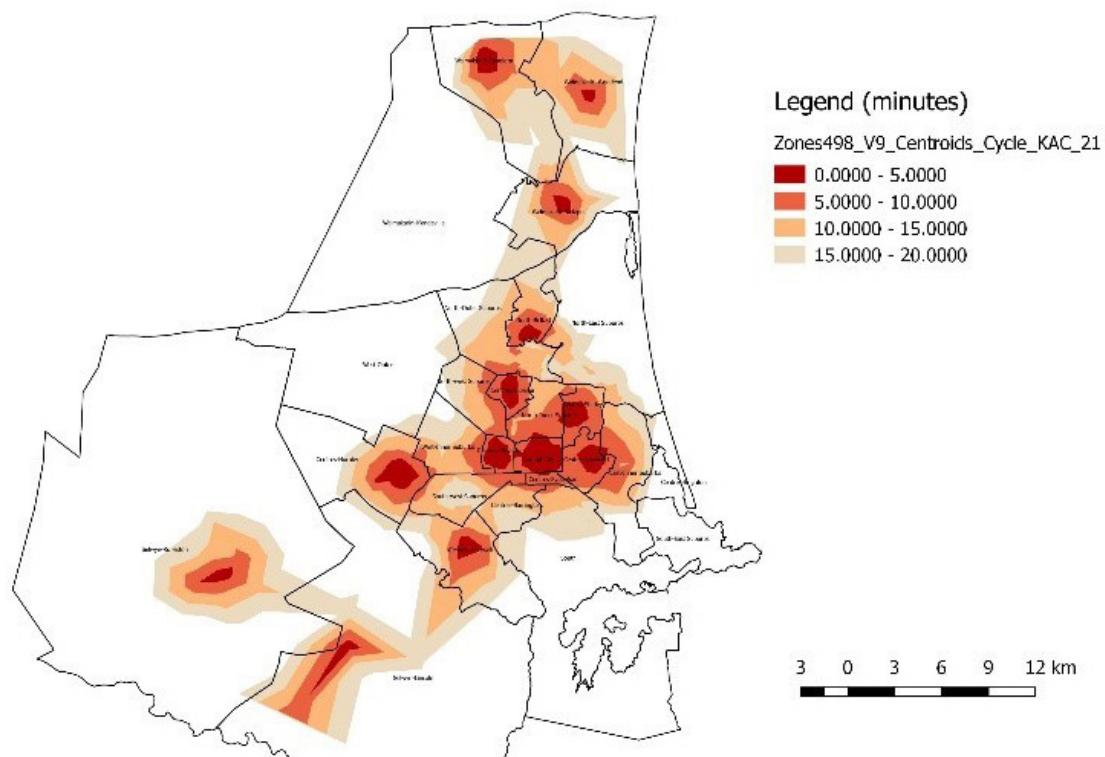
Major transport investment has accompanied urban expansion, through the construction of highways, arterial roads, and overpasses, as well as increasing capacity within the road network. This investment has made it easier to access Key Activity Centres by car, than it is to access by cycle or public transport. This is demonstrated in Figure 3.

FIGURE 3: ACCESSIBILITY MAP TO KEY ACTIVITY CENTRES IN GREATER CHRISTCHURCH BY CAR, CYCLE OR PUBLIC TRANSPORT

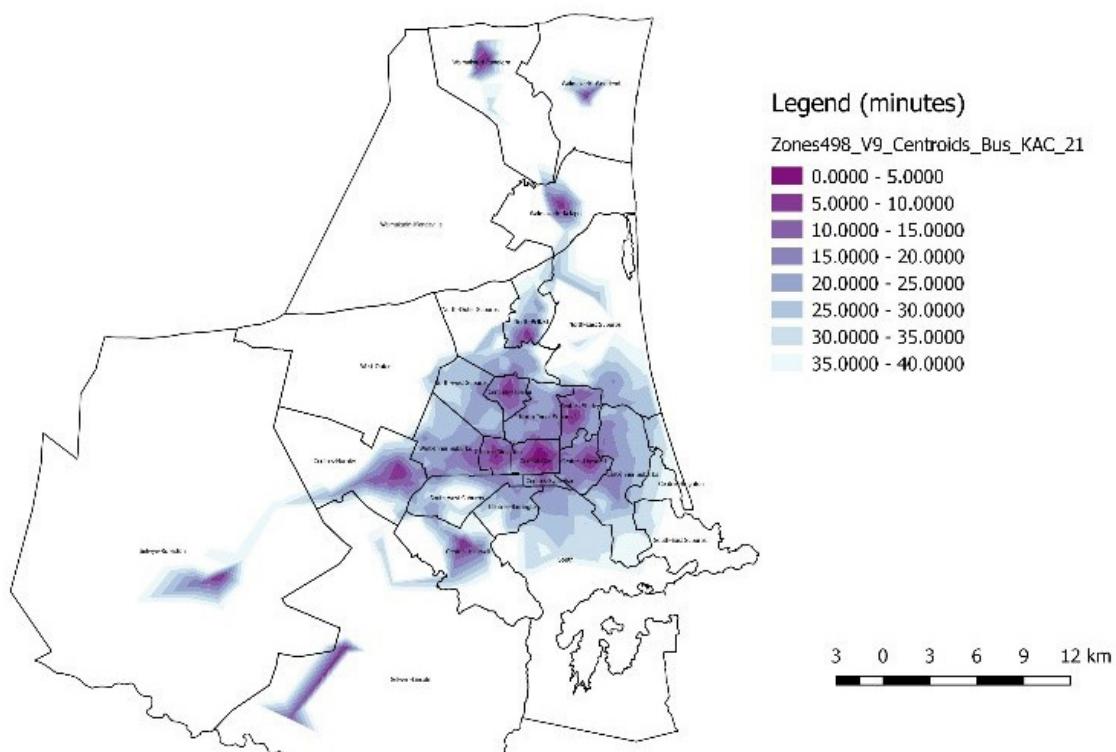
Accessibility to KACs - 2021 AM (Car)



Accessibility to KACs - 2021 AM (Cycle)



Accessibility to KACs - 2021 AM (Bus)



National and local policy directs a new approach for land use and transport investment, where investment is focused on supporting public transport and active modes and travel demand is managed. In Greater Christchurch, this investment needs to be integrated with an increased focus on land use development that achieves a more consolidated urban form and further supports mode shift opportunities.

Focus area 1: Enable, support and encourage housing, business growth and public facilities in areas with sustainable travel options

There is a strong connection between these two focus areas. The first relates to macro level land use, and the second relates to urban form at a neighbourhood and suburb level. Both focus areas will have a strong influence on the success of initiatives under lever two (making public transport and active modes more attractive).

Greater Christchurch

Greater Christchurch partners have undertaken significant work to ensure there is sufficient development capacity for housing and business growth across Greater Christchurch.¹²

The partners are working together on developing Greater Christchurch 2050 which will contribute to a sustainable urban form which aligns land-use and transport, and enables an integrated and efficient public transport system, including mass rapid transit. This work will help inform the full review of the Canterbury Regional Policy Statement (CRPS) scheduled for 2023. This will provide an opportunity to further shape urban form to encourage mode shift.

The partners are evaluating the appropriateness of existing densities for each territorial authority. Mode shift will be supported by a more consolidated urban form.

In addition, land use planning through the district plans and the Christchurch City Council's spatial plan will provide opportunities to integrate land use and transport. Influencing appropriate land use patterns, such as consolidation along key transport corridors, will further support mode shift. Influencing land use to support mode shift represents a long-term opportunity and is best managed through future strategic work such as Christchurch 2050.

Christchurch city

In Christchurch city, land use plans have been in place for some years to facilitate the development of an urban form that better supports sustainable transport. The housing densities provided for under the Christchurch District Plan enable medium to higher density development, with intensification rates improving. Significant further investment is still required to improve liveability and achieve greater gains in mode shift, particularly within those areas targeted for intensification.

Christchurch City Council is developing a spatial plan and a new transport plan. These plans will be integrated and will provide strategic guidance for shaping urban form, including to support mode shift within the city. The Spatial Plan will include development of a redevelopment programme for medium density housing areas around Key Activity Centres and along public transport corridors. This work will be influenced by the Greater Christchurch Public Transport Futures Business case through the Mass Rapid Transit work.

Christchurch City Council is also developing a Central City Parking Policy that supports desirable urban form and mode shift. The policy aims to address the unique issues of the central city where land value is high, and perceptions of parking are not well understood.

Selwyn District

Selwyn District has taken a strategic planning approach to developing land use through Selwyn 2031¹³ and implementation of township structure plans. The desire to consolidate urban form, provide different modes of transport and implement a strategic approach is also reinforced in the operative District Plan objectives and policies, including the utilisation of Outline Development Plans. This approach will continue in the Proposed District Plan which includes some intensification in the Key Activity Centres. The draft proposed District Plan will promote a multi-modal network through the consolidation of urban environments, access to wider transport options, and the integration of both land use and subdivision development with existing transport infrastructure, and the integrated placement of transport infrastructure into existing built up environments.

The council uses outline development plans as the implementation tool to promote multi-modal infrastructure such as walking and cycling. These are required for new areas in all council or private initiated plan changes.

13. Selwyn District Council 2014 www.selwyn.govt.nz/property-And-building/planning/strategies-and-plans/selwyn-2031

Waimakariri District

Waimakariri District, has a desire to consolidate around the town centres and encourage greater active travel within those centres. Work is progressing to achieve housing intensification to support mode shift. This reflects 'Our District, Our Future' – Waimakariri 2048, District Development Strategy¹⁴, which advocates for a greater mix of housing choice in the district's main towns. The strategy also aims to further enhance district self-sufficiency through employment and business opportunities. This strategy will reduce the need for travel from the district to Christchurch city for employment opportunities.

Summary of work in progress

The following work being progressed by partners will or is likely to support mode shift outcomes:

- The development of Greater Christchurch 2050 which will contribute to a sustainable urban form.
- Christchurch city is working on a spatial plan and a new transport plan and Central City Parking Policy for Christchurch city. This work will be influenced by the Greater Christchurch Public Transport Futures Business case work through the Mass Rapid Transit work.
- Selwyn District Council is undertaking a District Plan Review. The draft proposed District Plan will promote a multi-modal transport network and includes integrated transport assessment requirements and continue its approach to outline development plans as part of its policy framework.
- Waimakariri District Council will notify its District Plan in 2021. It proposes integrated transport assessments and continue its approach to outline development plans as part of its policy framework.

Focus area 2: Ensure the layout and design of urban areas supports public transport, walking and cycling

The design of greenfield and existing urban developments in Greater Christchurch should support and encourage the use of active modes (walking and cycling, scooters etc). There is a need to link development plans and encourage land use design that facilitates access to multi modal connections of core public transport routes, future mass rapid transport corridors and active transport options. Wider area connectivity, and improved amenity and safety is required as part of these development plans.

Historical development patterns in Greater Christchurch make it difficult to retrospectively provide for effective connections within built-up urban areas.

Urban areas in Christchurch originally developed along gridded street patterns connected to fixed tramline routes. After the Second World War, the city began to grow rapidly, and new suburbs emerged. 'Curvilinear' roads and streets, consisting of curved lines that offer a sense of privacy and seclusion, became the norm. Cul-de-sacs and circuitous streets were built away from nearby public transport routes and added significant journey time for people on foot. In many cases there was no easy connection to main public transport routes, requiring transfers and time penalties far in excess of journey times made by private vehicle. Figure 4 shows how rectangular and curvilinear roads and streets can affect travel times.

14. Waimakariri District Council 2018 www.waimakariri.govt.nz/__data/assets/pdf_file/0022/33727/180525057771-District-Development-Strategy-DDS-2018-FINAL-Web.pdf

FIGURE 4: THE FIVE-MINUTE WALKING CATCHMENT

Walking routes are often circuitous, making walking and cycling more attractive for local recreation than for active transport across suburbs. Over the next five to 20 years the partners will revise suburban masterplans and implement change to proposed developments to better reflect mode shift requirements.

In support of the local authorities, the Waka Kotahi Innovating Streets for People programme aims to make it faster and easier to implement temporary and semi-permanent physical changes to streets that will improve safety and liveability.

Christchurch city

After the 2011 earthquakes, Christchurch city redesigned the central city, supported by a comprehensive transport investment. An Accessible City implements projects in the central city that provide flexible and resilient travel options to enable growth in travel demand to be accommodated by public transport, walking and cycling. In addition, speed management initiatives support active modes in some areas.

Selwyn District

In Selwyn, the township structure plans provide strategic direction on movement provision on a township network level to improve pedestrian and amenity access. A programme to connect its high-growth townships like Rolleston and Lincoln together with off-road cycleways and also to adjoining city networks is underway through its Walking and Cycling Strategy, with other strategic links also identified to other townships.

Rolleston has the benefit of a non-stop bus service connecting the city centre, that is served by a park and ride facility. As part of the Rolleston Town Centre Plan, a high-amenity town centre streetscape and slow speed core are being implemented to support all transport modes.

The Lincoln Town Centre Plan, focuses on improving place and amenity and providing cycling connections between the town centre and Lincoln University.

Waimakariri District

In Waimakariri, the town centre plans provide a framework to implement the walking and cycling action plans across the district, including Rangiora, Kaiapoi and Woodend townships. The District Council has been active in promoting park and ride facilities, developing its cycleway network and supporting the high-occupancy vehicle lane between Waimakariri and

Christchurch city. These transport improvements are an important component of supporting sustainable urban growth.

Summary of work in progress

- An Accessible City implement projects in the central city to enable growth in travel demand to be accommodated by public transport, walking and cycling.
- Christchurch suburban masterplans aim to support active travel and connected communities.
- Speed management initiatives support active modes in areas such as Riccarton Road, Sumner and Northlands.
- Selwyn District Council town centre plans for Lincoln and Rolleston aim to improve pedestrian amenity and access.
- Waimakariri District Council District Development Strategy and corresponding town centre plans for Rangiora, Kaiapoi and Woodend township, aim to improve walking and cycling connectivity.
- Waka Kotahi Innovating Streets for People programme to support local authorities.

3.3. MAKING PUBLIC TRANSPORT AND ACTIVE MODES MORE ATTRACTIVE

Context

Achieving higher densities around public transport corridors is only part of the solution to achieve mode shift. There needs to be an efficient network of bus priority lanes, supported by frequent and attractive services. Greater Christchurch has a network of bus services, throughout Christchurch city, linking Christchurch with the surrounding townships. There has been a long legacy of under-investment in public transport in Greater Christchurch relative to other major urban centres. This makes achieving desired mode shift outcomes for public transport hugely challenging.

Travel by active modes has health and environmental benefits, as well as making parts of Greater Christchurch more accessible for short to medium length trips. The perception that our roads are unsafe for pedestrians and cyclists is a key deterrent to achieving a greater uptake of walking and cycling. Significant investment is underway in cycling, but more is needed to ensure local routes connect to Key Activity Centres.

Greater Christchurch's flat geography makes it particularly well suited to active modes, and many people live close enough to their workplace to make active transport feasible. On Census day in 2018, 66% of those who commuted to work within Christchurch city had a trip length of 7.5km or less yet, 57% of these commuters travelled by motor vehicle (driver or passenger). This figure indicates that there is a significant opportunity for mode shift gains to be made in Greater Christchurch through education campaigns and accelerating investment.

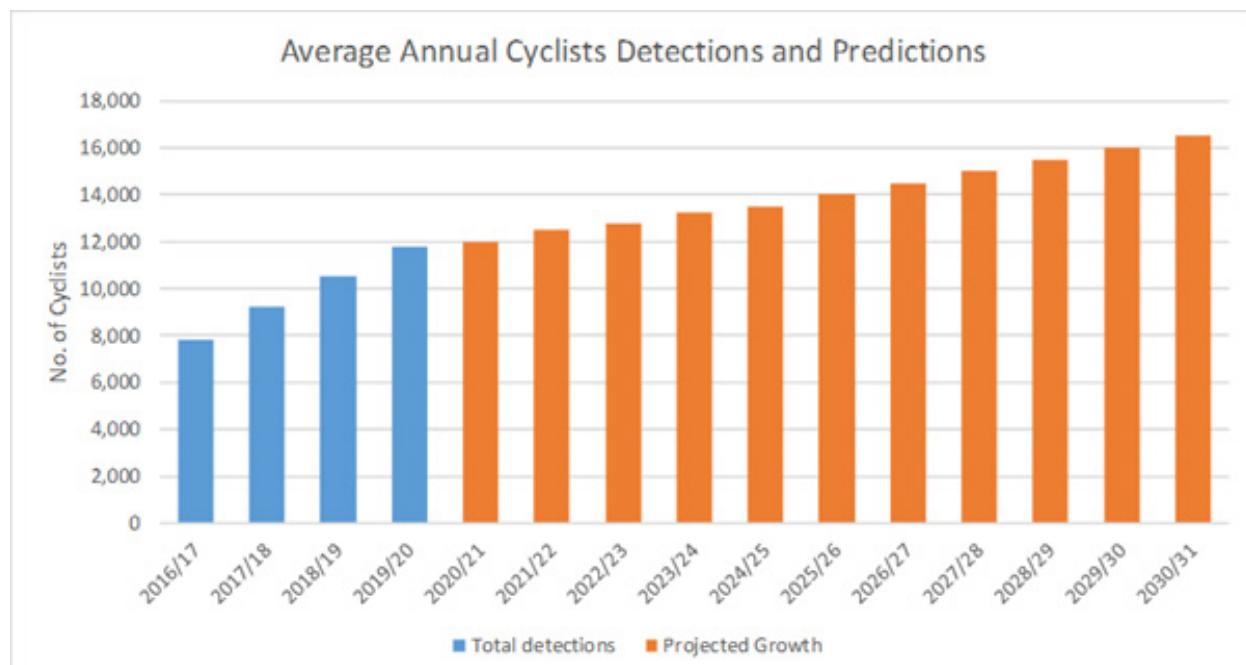
Walking is vital for connecting to public transport journeys and for short distance trips. Historically, there has been significant underinvestment in this mode. Since 2018, however, there has been a greater focus on planning and investing in footpaths with a subsidy for footpaths now included in the National Land Transport Fund. This is an area the partners would like to see a greater focus on in the next six years.

Focus area 3: Support the ongoing uptake of active modes through the ongoing implementation of pedestrian and cycle facilities to support people's journeys

Partners are planning and progressing investment in major and local cycle routes to connect within the city and districts, and to connect the city with the districts. This has included investment to segregate cyclists from general traffic on high-traffic routes, intersection improvements (such as crossing signals for cyclists), cycleways on arterials, shared paths and local routes on quiet streets.

Work on business cases for the Christchurch major cycleways and An Accessible City indicate that cycling mode share could reach double pre-earthquake levels by 2031 if cycleway networks are completed. Significant investment into this network and supporting facilities has been made over the past decade and this is starting to show benefits, with cycling levels in Christchurch city on track to double between 2016 and March 2031.¹⁶

FIGURE 5: TRENDS IN CYCLING TRIPS AND MODE SHARE IN CHRISTCHURCH CITY SINCE 2016



Investment through the COVID-19 Investment Package will provide certainty on completing the final sections of the major cycleway network. However, the full mode shift benefit of the cycling network investment to date will not be realised until several gaps (often small, but critical for end-to-end journeys) in existing routes are filled. Further investment is required to address the following weaknesses within the network:

- Provide connections to, and between, the major cycle routes.
- Provide connections to and around schools, and between schools and the major cycle routes.
- Provide connections between the residential suburbs, major recreational sites and commercial areas throughout Greater Christchurch, ie Christchurch, Selwyn and Waimakariri.

16. www.odt.co.nz/star-news/star-christchurch/christchurch-cyclists-change-gear?fbclid=IwAR3n0ud9SRMtJyKSMIX_2MSIBOUjf480lcP4pgb15Z1Pv6kX67JE0dU2hcw

Summary of work in progress

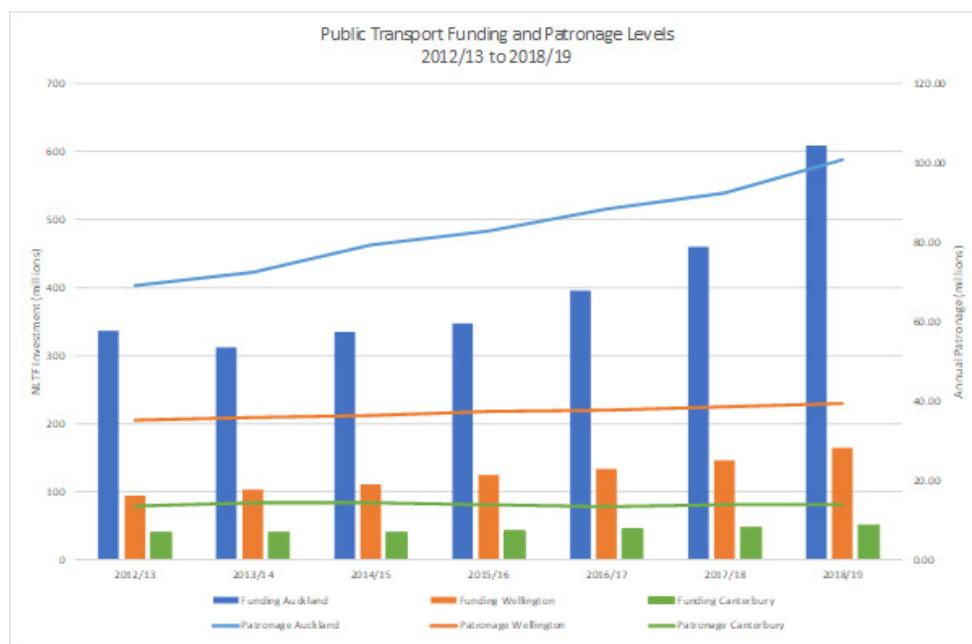
The following work is being progressed by partners:

- Ongoing progress to complete the programme of 13 major cycleways for Christchurch city. The Christchurch City Cycle Network Routes and Connections Business Case, currently in development, aims to support investment in local cycle routes and connections to the major cycleway network to schools, key destinations and activity centres.
- Both Waimakariri and Selwyn District Councils are delivering the action plan of their respective walking and cycling strategies:¹⁷
 - These action plans identify connections between Christchurch City and the respective townships. The strategies provide for a programme of development that will link into the Christchurch Major Cycleway networks.
 - Selwyn District's walking and cycling strategy aims to connect residential areas with key destinations such as commercial centres, schools and attractions. This includes the development of district network plans between townships and within townships.¹⁸ Promotion of transport choice is supported through objectives and policies in the current district plan.¹⁹
 - Waimakariri District is focusing on connecting Kaiapoi to the Passchendaele Path and south of Kaiapoi to the Northern Arterial and cycleway connection across the Waimakariri River. Waimakariri District is also currently developing a district network plan to link between and within townships in the district.

Focus area 4: Invest in infrastructure and service improvements to make public transport attractive

Historical underinvestment in public transport has affected levels of uptake. Figure 6 compares the amount of public transport investment and patronage levels in Christchurch to Wellington and Auckland, suggesting a positive correlation between investment and patronage.

FIGURE 6: PUBLIC TRANSPORT FUNDING AND PATRONAGE LEVELS



17. Selwyn District Council walking and cycling strategy and action plan 2018; Waimakariri District Council walking and cycling strategy and action plan 2017.

18. Selwyn District Council walking and cycling action plan 2018 p4

19. Selwyn District Plan Transport Objective B2.1.3 and Policies B2.1.14 and B2.1.15

Table 5 shows that investment in public transport per capita has been greater in Auckland and Wellington than in Christchurch for several years.

TABLE 5: INVESTMENT IN PUBLIC TRANSPORT PER CAPITA FROM 2012/13 TO 2016/17

YEAR	AUCKLAND	WELLINGTON	CHRISTCHURCH
2012/13	\$186	\$52.17	\$21.57
2013/14	\$168	\$56.35	\$25.29
2014/15	\$180	\$60.22	\$27.28
2015/16	\$184	\$69.80	\$22.04
2016/17	\$208	\$70.90	\$23.23

There is a significant opportunity in Greater Christchurch to improve the relative attractiveness of public transport (particularly compared to private vehicles) and achieve greater mode shift to public transport. The funding of public transport requires a collaborative effort between Environment Canterbury (which funds the services), the district councils (which fund the infrastructure) and Waka Kotahi, which supports the councils through a 51% Funding Assistance Rate. Public transport users also contribute through the payment of fares.

The aspiration for public transport in Greater Christchurch is set out in the wider Canterbury Regional Public Transport Plan (RPTP). In the short term (0–3 years) the RPTP focuses on stabilising and growing patronage, along with improvements to bus priority and service frequencies on the high-demand routes. In the medium to long term, the RPTP signals that significant investment in infrastructure and services will be required to achieve desired patronage levels. Public transport is well used on some key services at peak times. Environment Canterbury will decide in its next Long-Term Plan whether it will further invest to increase capacity on well utilised routes.

The future of public transport is being investigated through the Public Transport Futures Business Cases. Work is close to completion on the first two Public Transport Futures Business Cases. These will outline the priority opportunities for improving the current public transport network to invest in growing public transport patronage in Greater Christchurch over the next 10 years.

Significant improvements to public transport will require a step change in investment for all partners. An investment decision will be required at the conclusion of the third business case (Mass Rapid Transit) to determine the future direction for public transport. This work will take a mode neutral approach. Short-term funding for public transport services and infrastructure will be constrained, with modest changes likely to maintain the levels of service.

Other initiatives proposed to improve and streamline the customer experience for public transport in the short-term include adoption of the national ticketing service to facilitate alternative (online/credit card) payment for passengers; and investment in the real-time information service to improve information reliability.

This mode shift plan supports that direction, but it is important that it does not pre-empt the outcome of this investigation. The public transport priority package therefore recommends initial investment to improve the current public transport network.

Summary of work in progress:

- The Public Transport Futures Business Cases as follows:
 - Public Transport Foundations and Rest of Network Business Cases is identifying an investment package that is needed to implement the strategic network in the RTPP (core network).
 - The Mass Rapid Transit Business Case investigates the investment package to deliver a mass rapid transit system for Greater Christchurch.
- Planned investment to improve bus priority on key corridors and to improve the reliability of travel times for public transport. Examples include Lincoln Road to Moorhouse to Curleths Road, sections of Ferry Road, sections of Main North Road and Papanui Road within Christchurch city.
- Park and Ride sites are being developed in both Selwyn and Waimakariri in conjunction with the planned direct buses that will provide peak hour commuters with faster trips into Christchurch city.
- The Regional Public Transport Plan (2018) includes an action plan of short, medium and long-term initiatives. The bulk of the plan is about network and service investment and this is now captured in the Public Transport Futures Business Case.

3.4. INFLUENCING TRAVEL DEMAND AND TRANSPORT CHOICES

Context

Influencing travel demand and transport choices refers to the concept of travel demand management (TDM). TDM seeks to optimise the efficiency of the transport network by changing user behaviour, for example walking, cycling, carpooling, public transport, shared transport, and decisions not to travel or to travel at different times. Managing travel demand can be a cost-effective alternative to increasing road network capacity and delivers better environmental, social and economic outcomes.

TDM requires investment in a range of both hard (physical infrastructure) and soft measures (behavioural change).

Focus area 5: Make it safe, easy and intuitive for people to change to sustainable modes

For people who are used to travelling by car, changing to a new mode of travel can be daunting. Research conducted on a sample of 1,076 people in Christchurch in 2019 identified 'lack of confidence, information and familiarity' as a key barrier preventing people from making alternative travel choices.²⁰ Complex route finding, complicated payment systems, or poor customer service can discourage infrequent users from using public transport. A lack of equipment, changing facilities at the end of journeys, and difficulties identifying safe routes can also deter people from cycling.

Soft measures to increase awareness and demonstrate the benefits of mode shift are urgently needed to support communities to make full use of existing active and public transport

20. Waka Kotahi NZ Transport Agency (May 2019) Travel Demand Management Customer Insight.

options, as well as new infrastructure and future planned services. The Christchurch City Council Citywide Programme Business Case in 2017 recommended a TDM business case to develop the programme of measures needed to achieve this kind of behavioural change.

This TDM work recognises the investment in behaviour change initiatives which will be critical to encourage travellers to shift from single occupancy vehicles to lower impact modes. In the short-term, this is being addressed through the development of a proof-of-concept TDM programme. The draft programme identifies a suite of behaviour change interventions targeting both origins and destinations such as schools, households and workplaces and corridors along core public transport routes.

Ongoing learnings from this programme will inform future infrastructure and service improvement projects: in future it is envisaged that behaviour change activities will be included in the scope of such projects, to ensure that this critical component is fully supported.

Summary of work in progress

There is currently a programme delivery for travel behaviour change.

- **Central City Workplace Travel Plan programme** - this is a Greater Christchurch Partnership funded initiative led by Christchurch City Council . This is designed to help people to switch to active, public and shared travel as their office returns to the central city.
- **Greater Christchurch School Travel Plan programme** - school travel planning is a longstanding activity in Greater Christchurch. The councils work with schools to develop travel plans that encourage walking and cycling and overall safer accessibility to schools. This includes specific activities like 'walking school buses' or 'walk or wheel' to school days. The need to consider travel planning from the outset is factored into the consenting of new schools being planned in the high-growth areas of Greater Christchurch.
- **Cycle Safe programme - Greater Christchurch** – Cycle Safe is the most significant education programme and is a leading cycle skills programme nationally. Each council has its own programme, with Selwyn District looking to expand its programme for 2021-24. In addition to Cycle Safe, other programmes include:
 - promoting participation in the Waka Kotahi annual Aotearoa Bike Challenge
 - Bike Easy maps that include tips on safe cycling
 - participation in active travel promotion events.
- **Travel Demand Management Business Case** - to expand the scope and geographical nature of these active programmes, and to support investment in significant improvement businesses cases currently underway, the partnership is developing a TDM Business Case. This work identifies a suite of interventions and a series of packages to support targeted areas such as Brougham Street, corridors such as Lincoln Road and the Public Transport Futures investment.

4. INITIAL PRIORITIES

There are already significant activities underway to improve mode shift in Greater Christchurch which include the completion of the Christchurch Major Cycleways Programme and development of the Public Transport Futures programme.

In developing this plan, the partners have identified three packages of opportunities to accelerate mode shift in the short-term (3 to 6 years). While some components of these packages are already funded through council annual plans, the vast majority remain subject to funding prioritisation through councils' Long-Term Plans, the Regional Land Transport Plan, and the National Land Transport Fund. This assessment of priority packages is intended to inform, and support aligned decision-making by the Greater Christchurch Partners and central government.

4.1. PRIORITY PACKAGES

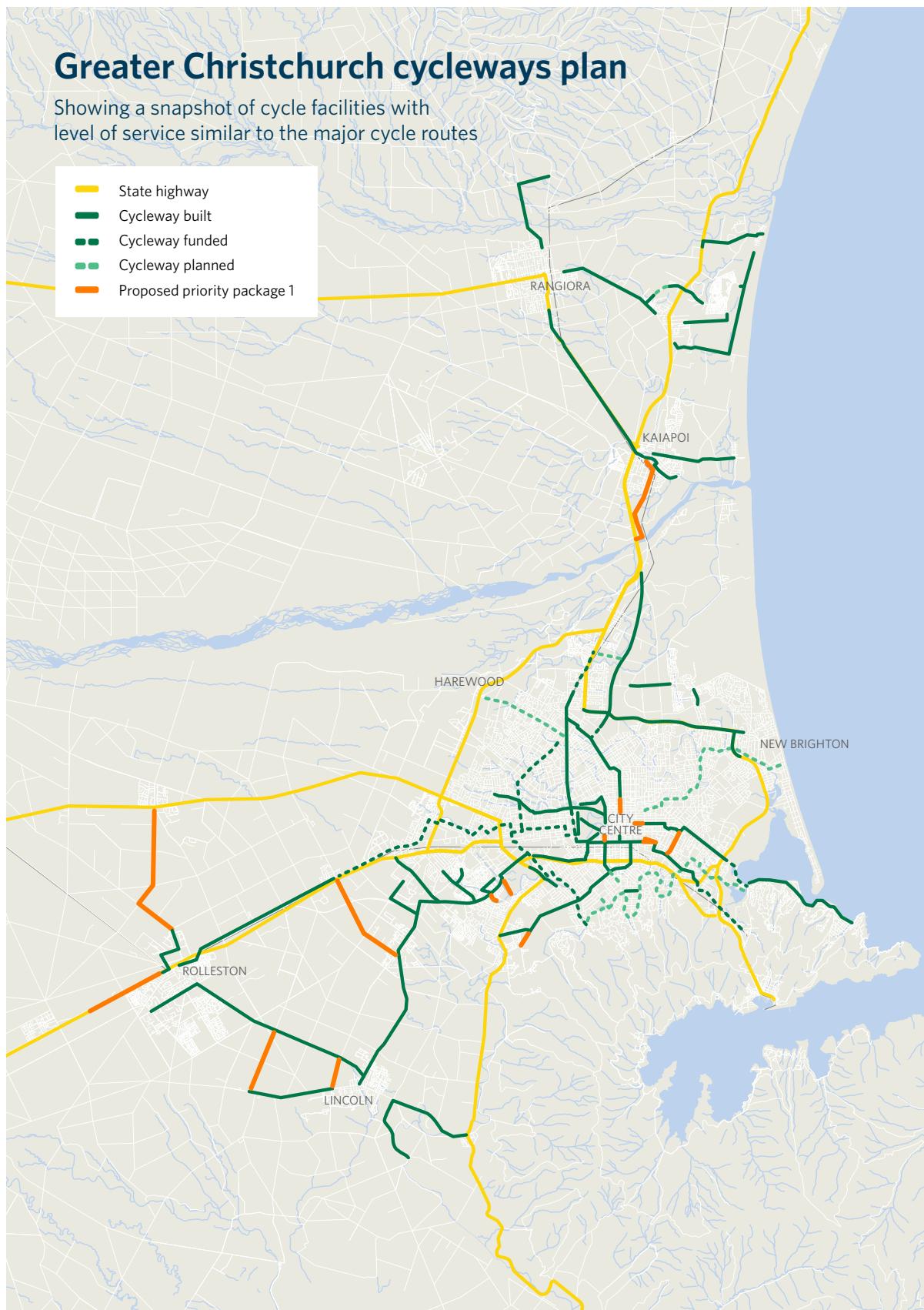
Package 1: Connecting the cycleways

Filling in critical gaps in the cycleway network will enable end-to-end journeys to be undertaken more safely, thereby supporting more residents to travel by bike and e-bike, and fully leverage the significant investment made to date in this network.

The following enhancements to the network have been identified as offering the best short-term opportunities. These are illustrated in Figure 7.

- Four remaining connections within and across the CBD (Ferry Rd, Antigua St, Colombo St and Worcester St).
- Gaps in links between Christchurch city and the Selwyn and Waimakariri townships (CSM to Prebbleton; CNC to Kaiapoi).
- Links between townships (Woodend to Kaiapoi; Templeton to Rolleston and Prebbleton; West Melton to Rolleston; Rolleston to Burnham; Springfield to Rolleston).
- Local connections between cycleways and major generators and destinations.



FIGURE 7: GREATER CHRISTCHURCH CYCLEWAY NETWORK

The indicative cost of these enhancements to the cycle network is approximately \$22m.

Package 2: Public Transport Service Improvements

A holistic approach to grow public transport mode share will be confirmed in mid/late 2020 through the PT Futures detailed business cases; however, the short-term opportunities that are likely required regardless of PT Futures include:

- Enhancing overcrowded services: Several routes in the network are already at capacity at peak times, with a corresponding opportunity to lift patronage by introducing new express and/or higher frequency services on these routes. The popularity of express services is highlighted by the morning and evening service (between Rolleston and the central city); a route that has experienced patronage growth of 20% pa since it was introduced in 2018, bucking the network-wide trend. More frequent express services from Rolleston that include Lincoln to the central city would see patronage continue to grow from these expanding townships. Similarly, non-express services on popular routes such as the Purple and Orange Lines are currently oversubscribed at peak times, highlighting the immediate opportunity available to address this situation with higher frequency services.
- Piloting On-Demand Public Transport: This will build on the learnings from the Timaru on-demand trial once completed (June patronage of the new on-demand service is tracking well above that of the fixed routes services it replaced, for the same period in 2019).²¹ There is an opportunity to test a similar service in areas of Greater Christchurch. The pilot would focus on suburbs and townships where an on-demand service is anticipated to deliver maximum community benefit, which are not well served or considered uneconomic by using fixed route services; or townships such as Rolleston and Rangiora, where an on-demand service would connect travellers from their home to express services.
- Improving Bus Prioritisation: Travel time reliability is a key driver of public transport uptake, with the opportunity to improve this by extending bus prioritisation along key routes, including through new bus lanes (such as that planned along Lincoln Road) and intersection priority measures.
- Streamlining the Customer Experience: Various initiatives are proposed to improve and streamline the customer experience in the short-term. For example, Greater Christchurch plans to adopt the national ticketing service to facilitate alternative (online/credit card) payment.

Package 3: Encouraging Behaviour Change

Behaviour change initiatives provide a relatively low cost - high benefit mechanism to deliver mode shift, particularly where campaigns are aligned with improvements in infrastructure and services. The business case is still under development and has not been committed by the partners.

The indicative cost of this programme is approximately \$2-3m but will be confirmed on the completion of the business case.

21. <https://www.stuff.co.nz/timaru-herald/news/121904088/nzs-first-on-demand-public-transport-services-launches-in-timaru>

4.2. IMPLEMENTATION

Appendix 2 provides a table summarising the work that is planned and high-level timeframe for implementation. The focus of this section is on exploring the constraints on the level of funding required to fully implement the mode shift plan.

4.3 IMPLEMENTATION OVERVIEW

This is the first mode shift plan and it represents a summary of the current work undertaken both separately and jointly by the partners. This plan is not a standalone document.

Implementation will be achieved through its collaboration and coordinated investment in the upcoming Long-Term Plan process. The delivery of mode shift initiatives will require an ongoing co-ordinated approach throughout the first few years of the Long-Term Plan programme.

The next iteration of the mode shift plan is imminent and will enable the partners to have more ambitious programmes (and perhaps investment) that will influence the Annual Plan process for 2022 and beyond. The opportunities for the next mode shift plan include a better understanding of the pathways for transport and climate change (emissions reduction) and alignment to the vision of 2050 partnership work.

4.4. FUNDING

This plan outlines a comprehensive range of initiatives that are underway or planned for the progress towards mode shift in Greater Christchurch.

While this plan has been written within the funding plans, to achieve our mode shift and emissions reduction aspirations, bold decision making and appropriate investment is needed to support future iterations of this plan.

4.5. MONITORING AND MEASURING PROGRESS

This plan represents the first version for mode shift. Initiatives in this version will be monitored through existing processes. Future, more ambitious plans for mode shift may require more coordinated and integrated monitoring frameworks. This will be assessed as part of the next version of the plan and the processes established for Christchurch 2050.



APPENDIX 1: GLOSSARY AND ACRONYMS

ACRONYMS

AAC	An Accessible City
GPS	Government Policy Statement on Land Transport
LTMA	Land Transport Management Act
LTP	Long-Term Plan
NLTF	National Land Transport Fund
NLTP	National Land Transport Programme
RLTP	Regional Land Transport Plan
RPTP	Regional Public Transport Plan
SSBC	Single Stage Business Case
TDM	Travel Demand Management
TDM SSBC	the Travel Demand Management Single Stage Business Case

GLOSSARY

ACCESS enabling all people to participate in society and reach those things which matter most to them, through access to social, economic, and cultural opportunities, such as work, education and healthcare.

ACTIVE MODES walking, cycling, skating, skateboarding and other methods of travel that require physical activity for movement.

AN ACCESSIBLE CITY An Accessible City is a chapter within the Christchurch Central Recovery Plan. AAC reimagines Christchurch's Central City travel network and public realm, creating the foundation for a healthier, safer city centre that aims to triple cycling and pedestrian movements by 2041.

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

AUTONOMOUS VEHICLE a vehicle capable of travelling without the need for human input, by using a combination of sensors and software to control, navigate and drive the vehicle.

BASE LEVELS OF SERVICE the essential benefits that the land transport system provides to customers, including safety, resilience, reliability and access across land transport modes. The appropriate base level of service varies in different corridors according to the nature and level of demand on each corridor. Base levels of service are maintained through the interventions we make to plan, maintain, manage, operate and regulate use of the land transport system.

COMMITTED ACTIVITY funding has been allocated to the activity and contracts have been signed to undertake the work.

CONGESTION is a condition on transport that is characterised by slower speeds, longer trip times and increased vehicle queueing. It occurs when there is excessive demand for road space and it therefore mainly affects urban areas.

CORRIDOR a linear transport connection that enables the movement of people and goods, using one or more modes.

GREATER CHRISTCHURCH includes the urban areas of Christchurch City Council and the high urban growth areas in Selwyn and Waimakariri Districts.

GREATER CHRISTCHURCH PARTNERSHIP a partnership that collaborates to plan and manage the impacts of growth and development on the Greater Christchurch area which

include the main urban areas of Christchurch city, and the Selwyn and Waimakariri districts. The partnership includes Te Runanga o Ngai Tahu, Canterbury District Heath Board, Regenerate Christchurch, Department of Prime Minister and Cabinet, Waka Kotahi NZ Transport Agency, Environment Canterbury, Christchurch City Council, Waimakariri District Council and Selwyn District Council.

HIGH OCCUPANCY VEHICLES vehicles carrying more than a specified minimum number of people.

KEY ACTIVITY CENTRES key commercial centres identified in the Canterbury Regional Policy Statement which are focal points for employment, community activities and the transport network, and which are suitable for more intensive mixed-use development.

LEVER a mechanism for influencing the transport system.

LONG-TERM PLANS a key planning tool under the Local Government Act 2002 that describes a council's activities and the community outcomes the council aims to achieve. It also supports integrated decision-making and coordination of resources.

MODE SHIFT increasing the share of travel by public transport, walking and cycling in towns and cities, in order to deliver a more accessible, safe and sustainable transport system. Mode shift can also refer to the increased use of rail and coastal shipping (where appropriate) to move freight.

OPTIMISATION (OF TRANSPORT NETWORK) extracting maximum utility from the land transport system including through the active management of networks, considered allocation of space within transport corridors, and efficient delivery of services.

RAPID TRANSIT public transport capable of moving many people, eg light rail and dedicated bus routes. Common characteristics of rapid transit include frequent services, fast loading and unloading capability, and largely dedicated or exclusive right-of-way routes.

REGIONAL LAND TRANSPORT PLAN six-year plans under the Land Transport Management Act 2003 that document a region's land transport objectives, policies, and measures as well as providing a statement of transport priorities. The plans generally set out all significant transport activities proposed by councils and Waka Kotahi, including those activities proposed for inclusion in the National Land Transport Programme. They are reviewed every three years.

RELIABILITY the consistency or dependability of a trip's travel time measured from day to day and/or across different times of day.

RIDE SHARING an arrangement in which a passenger shares a car with others.

ROAD SAFETY preventing land transport-related harm.

SPATIAL PLANNING the process of giving geographical expression to a communities economic, social, cultural and ecological ambitions. It helps to ensure that the development and use of land can support desired community outcomes, including transport outcomes.

STEP CHANGE (WAKA KOTAHİ) the areas where Waka Kotahi considers a step change is required over the next decade, in order to deliver on the government's priorities and ensure a fit for purpose land transport system.

TRAVEL DEMAND MANAGEMENT changing travel behaviours (ie, how, when and where people travel).

VEHICLE KILOMETRES TRAVELED (VKT) the total annual vehicle kilometres travelled in an area.

APPENDIX 2: MODE SHIFT PLAN TABLE

FOCUS AREA 1: SHAPING URBAN FORM	WORK RECENTLY COMPLETED/ UNDERWAY/PLANNED	GAP	ACTIONS	TRANSPORT MODES SUPPORTED THROUGH THIS WORK	INDICATIVE TIMEFRAME FOR IMPLEMENTATION			INDICATIVE COST	FUNDING	STATUS/ NEXT STEPS	PRIORITY			RESPONSIBILITY (LEAD)	REFERENCE DOCUMENT
					S	M	L				M	H	C		
1. ENABLE, SUPPORT AND ENCOURAGE HOUSING, BUSINESS GROWTH AND PUBLIC FACILITIES IN AREAS WITH SUSTAINABLE TRAVEL OPTIONS	Greater Christchurch partners are evaluating the appropriateness of existing medium densities for each territorial authority. While mode shift is not a direct factor in this study, mode shift will be supported by a more consolidated urban form.		Ongoing	All modes	S			\$	Funded	Our space process completed			C	GCP	Our Space
	Christchurch City Council is developing a central city parking policy with a view to supporting mode shift to active and public transport.		Ongoing	All modes	M			\$	Unfunded				C	CCC	Council long term plan
	Christchurch City Council is developing a spatial plan and a new Christchurch Transport Plan - these will be well integrated and will provide strategic guidance for shaping urban form, including to support mode shift.		Ongoing	All modes	S			\$	Unfunded			H		CCC	Council long term plan
	Environment Canterbury will review its Regional Policy Statement		Use the RPS review process to strengthen reference to mode shift and develop mode shift outcomes.	All modes	M			\$	Unfunded			H		ECan	Council long term plan Our Space
	Selwyn is reviewing the District Plan. Planning and measures identified will seek to enhance transport and land use integration.	Improvements to strengthen land use and transport integration and support greater opportunity to encourage travel choice.	Use the District Plan review process to strengthen reference to mode shift and develop mode shift outcomes.	All modes	S			\$\$	Funded			C		SDC	Council long term plan Our Space
	Waimakariri is reviewing the District Plan. Planning and measures identified will seek to enhance transport and land use integration.	Improvements to strengthen land use and transport integration and support greater opportunity to encourage travel choice.	Use the District Plan review process to strengthen reference to mode shift and develop mode shift outcomes.	All modes	S			\$\$	Funded			H		WDC	Council long term plan Our Space

FOCUS AREA 1: SHAPING URBAN FORM	WORK RECENTLY COMPLETED/ UNDERWAY/PLANNED	GAP	ACTIONS	TRANSPORT MODES SUPPORTED THROUGH THIS WORK	INDICATIVE TIMEFRAME FOR IMPLEMENTATION			INDICATIVE COST	FUNDING	STATUS/ NEXT STEPS	PRIORITY			RESPONSIBILITY (LEAD)	REFERENCE DOCUMENT	
					S	M	L				M	H	C			
2. ENSURE THE LAYOUT AND DESIGN OF URBAN AREAS SUPPORTS PUBLIC TRANSPORT, WALKING AND CYCLING	An Accessible City (AAC) includes implementation of a range of projects to ensure that the central city transport system provides a range of travel options that are flexible and resilient, and enable growth in travel demand to be supported by public transport, walking and cycling.	Funding and mechanisms to accelerate the mode shift components of the AAC programme.	Extend the cycleway connections with the Major Cycleway Network	All modes		M		\$\$	Partially funded					C	CCC	Council Long Term Plan; An Accessible City Business Case; Central City Recovery Strategy
	Suburban master plans ensure support for active travel and connected communities.			Walking/ cycling	S			\$\$	Funded	Underway		H		GCP	Council long term plan	
	Speed management in urban areas to support active modes such as Riccarton Road, Sumner and around Northlands.			Walking/ cycling	S			\$\$	Partially funded	Underway		H		CCC	Council long term plan	
	Selwyn District Council Town Centre Plans, with the aim to improve pedestrian amenity and access ▪ Rolleston will be completed shortly ▪ Lincoln is planned for the medium term			Walking/ cycling	S	M		\$	Funded	Underway		H		SDC	Council long term plan	
	Waimakariri District Council Development Strategy and corresponding Town Centre Plans ▪ Rangiora, Kaiapoi and Woodend Township improvements include better walking and cycling connectivity			Walking/ cycling	S	M		\$\$\$	Partially funded	Underway		H		WDC	Council long term plan	

FOCUS AREA 2: MAKING ACTIVE AND PUBLIC TRANSPORT MORE ATTRACTIVE	WORK RECENTLY COMPLETED/ UNDERWAY/PLANNED	GAP	ACTIONS	TRANSPORT MODES SUPPORTED THROUGH THIS WORK	INDICATIVE TIMEFRAME FOR IMPLEMENTATION			INDICATIVE COST	FUNDING	STATUS/ NEXT STEPS	PRIORITY			RESPONSIBILITY (LEAD)	REFERENCE DOCUMENT
					S	M	L				M	H	C		
3. SUPPORT THE ONGOING UPTAKE OF ACTIVE MODES THROUGH THE ONGOING IMPLEMENTATION OF PEDESTRIAN AND CYCLE FACILITIES TO SUPPORT PEOPLE'S JOURNEYS.	Ongoing progress to complete the programme of 13 Major Cycleways for Christchurch City. The Christchurch City Cycle Network Routes and Connections Business Case aims to:	The design of WDC, CCC and SDC cycleways is joined up, but the connections are not yet built.	Explore funding and other mechanisms to accelerate the	Cycling	S	M		\$\$\$	Partially funded	Underway			C	CCC	Christchurch City Major Cycleway Business Case
	Implementing the Action Plan from the Selwyn Walking and Cycling Strategy to build connections between Christchurch City and the respective townships, as well as to connect residential areas with key destinations such as commercial centres, schools and attractions.	Further connections between Selwyn and Christchurch through the various townships.	Complete connections between Christchurch City, Selwyn and Waimakariri Districts.	Cycling	S			\$\$	Funded	Underway		H		SDC	Council annual plans
	Continue delivery of the Waimakariri Walking and Cycling Strategy to build connections between Christchurch City and the respective townships, as well as to connect Kaiapoi to the Passchendaele Link to Rangiora and south to the Northern Arterial and cycleway connection across the Waimakariri River.			Cycling	S	M		\$\$	Partially funded	Underway		H		WDC	Council annual plans

FOCUS AREA 2: MAKING ACTIVE AND PUBLIC TRANSPORT MORE ATTRACTIVE	WORK RECENTLY COMPLETED/UNDERWAY/ PLANNED	GAP	ACTIONS	TRANSPORT MODES SUPPORTED THROUGH THIS WORK	INDICATIVE TIMEFRAME FOR IMPLEMENTATION			INDICATIVE COST	FUNDING	STATUS/ NEXT STEPS	PRIORITY			RESPONSIBILITY (LEAD)	REFERENCE DOCUMENT
					S	M	L				M	H	C		
4. INVEST IN INFRASTRUCTURE AND SERVICE IMPROVEMENTS TO MAKE PUBLIC TRANSPORT MORE EFFICIENT AND ATTRACTIVE	The Public Transport Foundations and Rest of Network Business Cases are identifying the investment package needed to implement the strategic network in the RPTP (core network)		Complete Business Case and fund recommended improvements to the roading network that support route structure and frequencies	Public transport	S	M		\$\$\$	Partially funded	Underway			C	GCP/GCPT/JC	RPTP
	<ul style="list-style-type: none"> Planned investment to improve bus priority on key corridors to improve the reliability of travel times for public transport. Priority measures on Lincoln Road between Moorhouse and Curleets, sections of Ferry Road, sections of Main North Road and Papanui Road. Various bus shelter, seats, accessibility and ITS installations 	Opportunity to identify and progress intersections and priority lanes to ensure better continuity along core routes.	Progress PT Futures Rest of Network to develop a strategy to complete the bus priority.	Bus	S			\$\$\$	Shovel ready	Being implemented	M			CCC	CCC AP
	Park and Ride sites are being developed in Selwyn District in conjunction with planned direct buses that will provide peak hour commuters with faster trips into Christchurch City. Rolleston site is completed.	There is no Greater Christchurch-wide plan for park and ride	Ongoing	Bus		M		\$\$	Unfunded	Recently completed with more planned in the future	M			SDC	N/A
	Park and Ride sites are being developed in Waimakariri District in conjunction with planned direct buses that will provide peak hour commuters with faster trips into Christchurch City <ul style="list-style-type: none"> Rangiora/ Kaiapoi sites are being developed More sites are likely to be developed and implemented in the medium/ long term The Regional Public Transport Plan (2018) includes an action plan of short medium and long term initiatives. The bulk of the plan is about network and service investment. This is now captured in the Public Transport Futures Business Case.	Explore funding and other mechanisms to accelerate implementation of the RPTP, primarily through the PT Futures business cases.	Ongoing	Bus	S	M		\$\$\$\$	Partially funded	Underway			C	GCPT JC	RPTP

FOCUS AREA 3: INFLUENCING TRAVEL DEMAND AND TRANSPORT CHOICES	WORK RECENTLY COMPLETED/UNDERWAY/ PLANNED	GAP	ACTIONS	TRANSPORT MODES SUPPORTED THROUGH THIS WORK	INDICATIVE TIMEFRAME FOR IMPLEMENTATION			INDICATIVE COST	FUNDING	STATUS/ NEXT STEPS	PRIORITY			RESPONSIBILITY (LEAD)	REFERENCE DOCUMENT
					S	M	L				M	H	C		
5. MAKE IT SAFE, EASY AND INTUITIVE FOR PEOPLE TO CHANGE THE WAY THEY TRAVEL	The TDM SSBC is intended to address a current gap in behaviour change programmes by developing an understanding of programmes needed.	Lack of behaviour change programme.	Complete the TDM business case to secure funding for behaviour change programmes. The TDM business case will be focused on mode and geographical business cases currently under development.	All modes	S	M		\$	Partially funded	Business case final draft		H		GCP	TDM Business Case; Greater Christchurch Investment Story
	Technology improvements for public transport, such as a national ticketing system and a Real Time Information system.	National Ticketing and RTI investigation not completed.	Complete the National Ticketing service and investment in the Real Time Information service to improve information reliability.	All modes	S			\$	Partially funded	Underway		H		ECan	National Ticketing Business Case; RTI Business Case

APPENDIX 3: PRIORITY PACKAGES

PRIORITY PACKAGE	OBJECTIVE	POTENTIAL INITIATIVES	INDICATIVE COST	COMMENT
1. CONNECTING THE CYCLEWAYS	Enable safer end-to-end cycle journeys to support more people to choose to cycle	<ul style="list-style-type: none"> ▪ Links within, and across, the central city connecting to the major cycleway networks. ▪ Finish links between the Christchurch city and the Selwyn and Waimakariri townships. ▪ Finish links between townships; Woodend to West Kaiapoi; Templeton to Rolleston and Prebbleton; West Melton to Rolleston; Springston to Rolleston. ▪ Local connections from cycleways and major trip generators and destinations. 	\$12m (CCC) \$6m (WDC) \$4m (SDC) Total \$22m	
2. PUBLIC TRANSPORT SERVICE IMPROVEMENTS	Improve services to encourage patronage through immediate, high-impact opportunities	<ul style="list-style-type: none"> ▪ New express and/or higher frequency services on over-subscribed routes to and from commuter townships. ▪ Improving bus prioritisation along key routes. ▪ Piloting on-demand services in townships and/or under-served suburbs. ▪ Streamlining the customer experience through national ticketing and real time information. 	Cost TBC through PT Futures Business Cases	Refer to the PT Futures DBC
3. ENCOURAGING BEHAVIOUR CHANGE	Soft measures to encourage more people to travel using active and public transport	<ul style="list-style-type: none"> ▪ Programme of travel behaviour change initiatives to be implemented to increase awareness of services available, demonstrate the benefit of mode shift and develop a feedback channel to keep customers using the active and public transport modes. 	\$2m-\$3m TBC through TDM Business Case (Partnership Cost)	Refer to the TDM Single Stage Business Case