



# **Executive Summary**

Let's Get Wellington Moving (LGWM) is a joint initiative by Wellington City Council, Greater Wellington Regional Council and the New Zealand Transport Agency. LGWM is investigating the merits of investing in the transport system to improve outcomes for Wellington, with a focus on the area from Ngauranga to the airport, including the central city.

This paper explains LGWM's proposed strategic response to the issues facing the transport system in central Wellington. Based on this strategic response, four illustrative scenarios have been developed for assessment and engagement with the public.

### Context

Future population and employment growth will mean more people need to get around. This presents challenges in a transport system that is already under pressure. We also know we will face challenges around climate change, sea level rise, earthquakes and accommodating population growth.

Feedback from early public engagement indicated that people want a liveable city that is easy to get around. They also want less traffic and congestion, together with good public transport, walkability, and to be able to cycle safely. Access to the waterfront and harbour, and availability of parking are also key issues for many people.

LGWM – Case for Change set out the rationale for a programme of investment in Wellington's central city transport system. The paper identified four key 'problems' with the current transport system and three key 'benefits' of investing to address these problems. It also summarised the programme objectives and key result areas, together with performance measures and a desired 'direction of change' for each of the measurable service areas.

# Strategic response

To provide the basis for the scenarios the LGWM team developed a strategic response to the problems and potential benefits identified, keeping in mind the programme objectives. To support liveability as Wellington grows we will need to move more people without more vehicles. That will mean investing in a multimodal package to change the current transport system to:

- Prioritise some routes in the central city for specific transport modes especially walking, public transport, and cycling
- Encourage more people to walk, use public transport, and bike into and out of the central city
- Enable access to key regional destinations such as the hospital and airport while minimising the impact on the central city.

The strategic response sets out the attributes of the transport system that will deliver the objectives, the strategic approach for transforming the current transport system into the desired one, and the high level 'strategic interventions' that will make this happen. This is summarised in the table below.



TRANSPORT SYSTEM ATTRIBUTES	STRATEGIC APPROACH	STRATEGIC INTERVENTIONS
A transport system that moves more people, goods and services reliably without more vehicles, while:  • Supporting a safe and liveable city where many more people will live, work and play  • Recognising and balancing the needs of all transport users and those affected by the transport system  • Increasing resilience to incidents, natural events and disruptive technology	Before doing anything else, we will:  • Find ways to get more out of the existing transport system and make it safer to use  • Encourage people to walk, use public transport, and cycle for more trips, and make fewer trips by car  Our emphasis for transport journeys to, from and within the central area is on:  • Giving greater priority to pedestrians, public transport and cyclists on key transport corridors  • Seeking opportunities to enhance the accessibility and amenity of places and streets for residents, businesses, workers and visitors  Our emphasis for transport journeys through and around the periphery of the central area is on:  • Reducing conflicts between different transport users and different traffic flows  • Increasing the resilience and reliability of our transport corridors	<ul> <li>Encourage safer and smarter use of the transport system</li> <li>Reduce traffic speeds in the CBD</li> <li>Influence how, when, and where people travel and park, to reduce the number of vehicles in the central city</li> <li>Encourage technological innovation to make better use of the existing transport system and reduce individual car use</li> <li>Consider use of pricing tools such as a levy on parking in the central city or congestion charging to help manage future demand</li> <li>Change operating priorities for the street network</li> <li>Improve footpaths and crossings for pedestrians</li> <li>Increase public transport priority on the key corridors</li> <li>Improve cycling facilities on agreed routes</li> <li>Optimise traffic signalling and other operational systems in accordance with agreed priorities for different users of the system</li> <li>Improve public transport services and infrastructure</li> <li>Increase capacity and reliability of public transport services</li> <li>Separate through-traffic from movements into, out of, and within the central city</li> <li>Build more safety and resilience into transport infrastructure and</li> </ul>
		networks



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# Glossary

### What is an intervention?

Interventions are types of improvements, activities, policies or solutions. They range across all modes of transport. Examples are building new infrastructure, managing travel behaviour through pricing, improving public transport and reducing vehicle traffic in certain areas of the city. Interventions can be considered as levers, and these levers can be pulled to a greater or lesser degree to achieve objectives. These interventions can be grouped into combinations called scenarios.

### What is a scenario?

Scenarios are packages of different transport and urban design interventions that will help improve the way the city looks, feels and functions, make it safe and easy to get around, and support the kind of future growth Wellington wants.

### What is liveability?

Liveability is the sum of the factors that add up to a community's quality of life—including the built and natural environments, economic prosperity, social stability and equity, educational opportunity, and cultural, entertainment and recreation possibilities. A key requirement for a liveable city is that people and businesses can access the destinations they need to reach safely and reliably.



# Introduction

Let's Get Wellington Moving (LGWM) is a joint initiative by Wellington City Council, Greater Wellington Regional Council and the New Zealand Transport Agency. LGWM is investigating the merits of investing in the transport system to improve outcomes for Wellington, with a focus on the area from Ngauranga to the airport, including the central city.

This paper is one of a series of papers documenting the work carried out by LGWM:

- 1. LGWM Strategic Context
- 2. LGWM Case for Change
- 3. LGWM Strategic Response
- 4. LGWM Summary of Scenarios
- 5. LGWM Strategic Assessment of Scenarios

Where this paper refers to other papers in the series, their titles are shown in italics.

The purpose of this paper is to explain LGWM's proposed strategic response to the issues facing the transport system in central Wellington. Based on the strategic response four illustrative scenarios have been produced for assessment and engagement with the public.

# Investment logic

*LGWM – Case for Change* set out the rationale for a programme of investment in Wellington's central city transport system. The paper identified the problems with the current transport system and the potential benefits of investing to address these problems, as summarised in Table 1 below:

Table 1 Problems with current transport system and potential benefits of investment

# PROBLEMS POTENTIAL BENEFITS Improved liveability through enhancing amenity, safety, and transport modal choice Improved accessibility through enabling more reliable and predictable journeys for people and businesses Safety issues especially for active modes Vulnerability to disruption from unplanned events Potential Benefits Improved liveability through enhancing amenity, safety, and transport modal choice Improved accessibility through enabling more reliable and predictable journeys for people and businesses Improved resilience through strengthening the transport system's ability to adapt to, withstand and/or recover from unplanned events



# Programme objectives and key service areas

Future population and employment growth will mean more people need to get around. This presents challenges in a transport system that is already under pressure. We also know we will face challenges around climate change, sea level rise, earthquakes and accommodating population growth.

Feedback from early public engagement indicated that people want a liveable city that is easy to get around. They also want less traffic and congestion, together with good public transport, walkability, and to be able to cycle safely. Access to the waterfront and harbour, and availability of parking are also key issues for many people.

Using the results from public feedback the LGWM team developed 12 urban design and transport principles which are summarised in Figure 1 below. From these principles the team developed a set of programme objectives and key result areas, together with performance measures and a desired 'direction of change' for each of the measured service areas. These are summarised in Table 2.



Figure 1 Urban design and transport principles



# Accessible, healthy and safe

Be socially inclusive and recognise the personal safety, access and health needs of all.

Through a transport system that meets the varied access needs of people of all demographics across Wellington city and the region.



# **Better public transport**

Significantly enhance public transport and increase its use.

Through improvements in the level of service across all public transport to make it easier to get around Wellington city and the region.



# Clean and green

Improve environmental outcomes for Wellington city and the region.

Through a transport system that respects nature and makes a positive contribution to environmental improvement.



# **Compact city**

Reclaim urban space to support a people-centred, compact and livable city.

Through a transport system that minimises urban sprawl, traffic in the CBD and ensures ease of access to facilities, entertainment and jobs.



# **Demand and supply**

Recognise that we need to do more than just build infrastructure and consider a range of ways to manage travel demand and supply across the network.

Through a transport system that has a range of costs and incentives in place to encourage change in network use.



# Future-proof and resilient

Provide a transport system that is adaptable and future-proofed for urban, transport and freight growth and resilient to natural hazards and climate change.

Planning for the impact that social, environmental, economic and technological change may have on travel and lifestyle preferences and recognising the role of transport services in encouraging urban development where we want it.



# Past, present, future

Respect the importance of character and heritage in New Zealand's capital city.

Through a transport system that ensures infrastructure developments enhance the cultural, heritage, recreational and amenity values of Wellington city's natural and built environment.



### **Predictable travel times**

Significantly reduce the impact of congestion on journey time predictability for all, at all times.

All includes commuters, tourists, movers of freight, trades people and anyone travelling throughout Wellington city and the region.



# Set in nature

Ensure that Wellington city remains safe and attractive, set in nature and connected to the harbour.



# Growth

Encourage continued economic growth and support population growth and intensification of Wellington city as the economic engine of the region.

Through a transport system that supports both residents and businesses.



# **Travel choice**

Provide better transport choices for Wellington city and the region.

In alignment with the sustainable transport hierarchy in the Wellington Urban Growth Plan and the Regional Land Transport Plan.



# Wider view

Recognise that there is a wide range of benefits to be realised from integrating urban form and transport thinking, and that increased value should not be measured by cost alone.



Table 2 Programme objectives, key result areas, performance measures and desired direction of change

Programme Objectives	<b>K</b> EY SERVICE AREAS	Performance measures	DIRECTION OF CHANGE
A transport system that enhances the liveability of the central city	Walkability in the CBD and access to the waterfront	Pedestrian levels of service - delay at specified locations, capacity/density  Spatial coverage of speed limits in the CBD under 50kph	Improve
		Space reallocated from motorised vehicles to people (including to greenspace)	Increase
	Quality of the urban environment	Number of vehicles entering the CBD	
	Impact of motorised transport in CBD		Reduce
	Impacts on natural environment	CO2 emissions, local ambient air quality, noise and vibration, impact on green space	Improve
	Impacts on built environment	Number/floorspace of buildings impacted in terms of resident and working population	Minimise
	No increase to number of vehicles in the CBD	Covered in above measure (motorised vehicle impact)	
A transport system	Journey time reliability and access to and from CBD	Travel time and delay (all modes)	Reduce
that provides more efficient and reliable access to support		Travel time variability (all modes)	Reduce
		Accessibility: Households within 30 minutes of CBD	Increase
growth	Consistency with the Urban Growth Plan and Wellington Regional Strategy	Qualitative assessment	Yes / no
	Throughput of people and goods on strategic corridors	People throughput on major corridors	Increase
		Change in goods service access to CBD (time and space)	Increase
		Operating Gaps all mode values (NOF)	Reduce
	Reliability and access to and from the airport, hospital and port	Accessibility: Households within 30 minutes of key destinations	Increase
	Transport demand spread across the day	Proportion of trips made during peak periods	Reduce
	PT travel time variability	Covered in above measure (journey time reliability and access).	
A transport system	Mode share (by mode and by time of day)	Mode share (non-car driver)	Increase
that reduces reliance		Pedestrian mode share	Increase
on private vehicle		Public transport mode share	Increase
travel		Cycling mode share	Increase
		Number of people within 30mins of CBD by PT	Increase
	Motor vehicle occupancy	Average motor vehicle occupancy by time of day on major corridors	Increase
A transport system	Road safety	Safety for pedestrians and cyclists (crashes by severity)	Reduce
that improves safety for all users		Total casualties by severity and by mode	Reduce
A transport system that is adaptable to	Adaptability to be able to respond and recover from unplanned events	Availability of alternative routes in case of disruption	Improve
		Availability of the transport system (the ability to react to short term unplanned events)	Improve
disruptions and future uncertainty		Mitigation of identified resilience issues on major corridors	Improve
	Adaptability and flexibility to cope with future uncertainty and technologies	Qualitative assessment of risk of stranded investment in case of: - Sea level rise - New vehicle technologies - Alternative growth futures	



# **Development of interventions**

The following process was followed to develop an inventory of possible interventions.

### Interventions longlist

An initial long list of interventions was developed by the three LGWM partners. The process took into account feedback from the LGWM website, the LGWM phone survey, panel surveys from Greater Wellington Regional Council and Wellington City Council and feedback collected from stakeholders by the New Zealand Transport Agency.

### Development of test scenarios

Development of a series of test scenarios began by considering the qualitative gap in the level of service for each mode, for each of four problem statement<sup>1</sup> areas: reliability and economic productivity, liveability, safety, and resilience. Different scenarios focussing on each of the four problem areas were then created by considering the relative scale of different types of intervention that might achieve the desired outcomes for the emphasised problem area.

High level multi-criteria analysis (MCA) was then carried out on the test scenarios to assess their likely performance in achieving the direction of change required for each key result areas set out in Table 2.

The overall finding was that the performance of the test scenarios was variable across the full range of key result areas, indicating a more holistic approach was needed.

Accordingly, a decision was taken by the LGWM Board to develop a set of multimodal scenarios that would integrate the best performing elements from the test scenarios to produce a range of illustrative scenarios that would perform more consistently across all the key result areas. These would then be assessed for their performance against the Do Minimum/base scenario.

### Proposed strategic response

To provide the basis for the scenarios the LGWM team developed a strategic response to the problems and potential benefits identified, keeping in mind the programme objectives. To support liveability as Wellington grows we will need to move more people without more vehicles. That will mean investing in a multimodal package to change the current transport system to:

- Prioritise some routes in the central city for specific transport modes especially walking, public transport, and cycling
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The strategic response sets out the attributes of the transport system that will deliver the objectives, the strategic approach for transforming the current transport system into the desired one, and the high level 'strategic interventions' that will make this happen. This is summarised in Table 3.

Four illustrative scenarios were compiled drawing from the list of strategic interventions. These are described in *LGWM - Summary of Scenarios*.

 $<sup>^{1}</sup>$  Note these problem areas were subsequently refined into the problem statements shown in Table 1  $^{1}$ 



# **Table 3 Proposed strategic response**

Transport system attributes	STRATEGIC APPROACH	STRATEGIC INTERVENTIONS
A transport system that moves more people, goods and services reliably without more vehicles, while:  • Supporting a safe and liveable city where many more people will live, work and play  • Recognising and balancing the needs of all transport users and those affected by the transport system  • Increasing resilience to incidents, natural events and disruptive technology	<ul> <li>Find ways to get more out of the existing transport system and make it safer to use</li> <li>Encourage people to walk, use public transport, and cycle for more trips, and make fewer trips by car</li> <li>Our emphasis for transport journeys to, from and within the central area is on:         <ul> <li>Giving greater priority to pedestrians, public transport and cyclists on key transport corridors</li> <li>Seeking opportunities to enhance the accessibility and amenity of places and streets for residents, businesses, workers and visitors</li> </ul> </li> <li>Our emphasis for transport journeys through and around the periphery of the central area is on:         <ul> <li>Reducing conflicts between different transport users and different traffic flows</li> <li>Increasing the resilience and reliability of our transport corridors</li> </ul> </li> </ul>	<ul> <li>Reduce traffic speeds in the CBD</li> <li>Influence how, when, and where people travel and park, to reduce the number of vehicles in the central city</li> <li>Encourage technological innovation to make better use of the existing transport system and reduce individual car use</li> <li>Consider use of pricing tools such as a levy on parking in the central city or congestion charging to help manage future demand</li> <li>Change operating priorities for the street network</li> <li>Improve footpaths and crossings for pedestrians</li> <li>Increase public transport priority on the key corridors</li> <li>Improve cycling facilities on agreed routes</li> <li>Optimise traffic signalling and other operational systems in accordance with agreed priorities for different users of the system</li> <li>Improve public transport services and infrastructure</li> <li>Increase capacity and reliability of public transport services</li> <li>Separate through-traffic from movements into, out of, and within the central city</li> <li>Build more safety and resilience into transport infrastructure and networks</li> </ul>