



## Advice on investments in the Wellington region

<b>Reason for this briefing</b>	You requested further advice on the National Land Transport Fund (NLTF) implications of funding a range of transport projects in the Wellington region.
<b>Action required</b>	Discuss this briefing with officials.
<b>Deadline</b>	11 March 2019.
<b>Reason for deadline</b>	You have your regular meeting with officials on this day.

### Contact for telephone discussion (if required)

Name	Position	Telephone	First contact
Bryn Gandy	Deputy Chief Executive, Strategy and Investment	██████████	
Brent Lewers	Acting Manager, Demand Management and Investment	██████████	
██████████	Adviser, Demand Management and Revenue	██████████	✓

### MINISTER'S COMMENTS:

Withheld to protect privacy of individuals

<b>Date:</b>	8 March 2019	<b>Briefing number:</b>	OC190220
<b>Attention:</b>	Hon Phil Twyford (Minister of Transport)	<b>Security level:</b>	In-confidence

### Minister of Transport's office actions

- Noted*
 *Seen*
 *Approved*
- Needs change*
 *Referred to*
- Withdrawn*
 *Not seen by Minister*
 *Overtaken by events*

## **Purpose of report**

1. This briefing provides advice on the NLTF implications of a number of scenarios for transport investment in the Wellington region.

## **Background**

2. Over the past few months we have been working with you, the New Zealand Transport Agency (NZTA), Wellington City Council (WCC) and Greater Wellington Regional Council (GWRC) to determine an fundable package for Let's Get Wellington Moving (LGWM).
3. In advice we provided to you in February 2019 [OC190121], we highlighted that there are a number of potential investments in the Wellington region outside of LGWM that are not included in the National Land Transport Plan (NLTP) and may require funding in the second or third decades. These projects include:
  - Petone to Grenada link road
  - access to the port and proposed new ferry terminal
  - Lower North Island rail commuter service (Palmerston North and Wairarapa) including new rolling stock
  - State Highway 1 optimisation measures
  - State Highway 2 optimisation measures
  - Hutt cross valley connection
  - Melling interchange improvements as part of the RiverLink programme
  - rail projects.
4. On 5 March 2019 you requested advice on the NLTF implications of making allowance for other investments in the Wellington region (Melling interchange improvements, Petone to Grenada Link Road and Otaki to Levin) alongside your priorities for LGWM.
5. You indicated that your priorities for LGWM are:
  - light rail to Newtown
  - light rail to the Airport
  - unblocking the Basin Reserve
  - a second Mount Victoria tunnel and four laning at Ruahine Street.
6. When we met with you on 6 March 2019, you requested further advice on the NLTF implications if greater allowance was made for additional investments in the Wellington region alongside your LGWM priorities.
7. In the time available we have focused on the scenarios derived from your priorities and the associated NLTF funding implications. We have not had the opportunity to consider wider issues.
8. Due to time constraints we have not been able to consult NZTA on the content of this briefing.

**Additional transport investment in the Wellington region outside of LGWM will be required over the next 30 years**

9. Table 1 outlines a number of projects identified in the Wellington region outside of LGWM that may require funding in the second or third decades. These costs are indicative only.

*Table 1 – projects in the Wellington region (not included in LGWM) that may require funding in the second and third decades*

<b>Project</b>	<b>Estimated cost (\$m)</b>
Petone to Grenada link road	600 – 1,000
Melling interchange improvements as part of the RiverLink programme	120 – 175
Otaki to Levin	750 – 1,200
Access to the port and proposed new ferry terminal	150
Lower North Island rail commuter service (Palmerston North and Wairarapa) including new rolling stock	350
State Highway 1 optimisation measures	40
State Highway 2 optimisation measures	100
Hutt cross valley connection	60 – 100
Allowance	500 <sup>1</sup>
<b>Total</b>	<b>2,670 – 3,615</b>

10. We have removed the rail projects that were included in our earlier advice to you. GWRC have advised that these are longer term aspirations that are not yet formed as projects. Investment is unlikely to occur until the third decade or later.
11. There is considerable uncertainty about what projects in the Wellington region outside of LGWM will require funding over the next 20 to 30 years. As a result, it is difficult to identify further future expenditure beyond the projects listed above. However, it is likely that further expenditure will be required in the second and third decade for resilience improvements and emergency works in response to climate change and natural hazards (eg earthquakes, flooding and slips).
12. We have included an allowance of \$25 million per annum to account for some of the uncertainty in the second and third decades.

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<sup>1</sup> Assumes \$25 million per year for 20 years.

*Further work is required to determine which investments in the Wellington region outside of LGWM are highest priority*

13. You asked us to look at scenarios that have different amounts of investment in projects outside of LGWM. GWRC has advised that further work is required to determine which of the projects in Table 1 are the most important for the Wellington region.
14. We have used the low and high ends of the total investment range in Table 1 to consider a 'high' and 'low' non LGWM investment package for the Wellington region.

**The LGWM base package includes essential investments that provide a platform for other LGWM components**

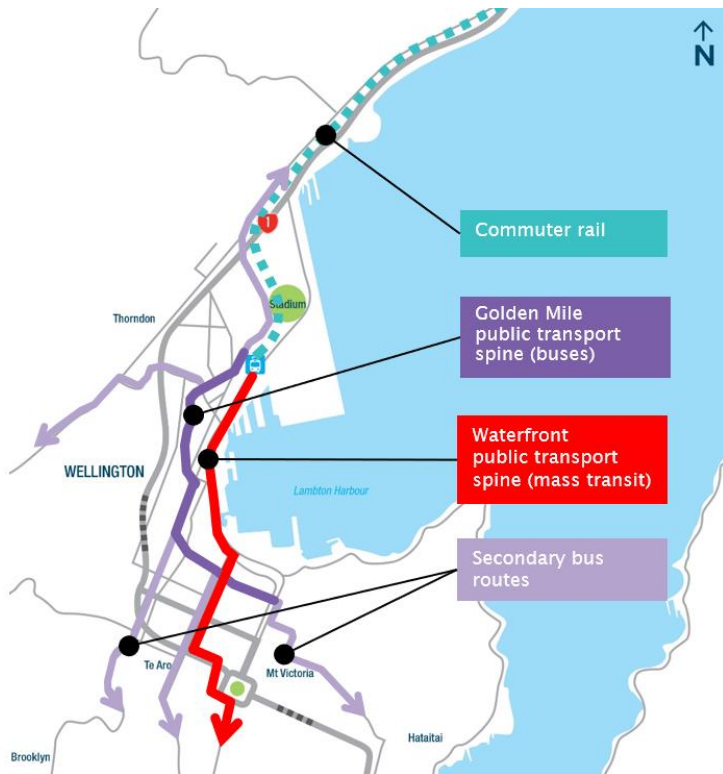
15. You asked for advice on the importance of the LGWM base package.
16. The cost of the LGWM base package is \$700 million, made up of:
  - a walkable city
  - connected cycleways
  - early improvements
  - public transport (city and north)
  - smarter transport network
  - smarter pricing
  - unblocking the Basin Reserve.
17. Only unblocking the Basin Reserve is included in your priorities for LGWM.
18. The base package includes investments that are essential to provide the platform for the more substantial additional components, especially light rail. The base package delivers cost effective improvements to the transport system which will make a significant contribution to the LGWM objectives, and the Government Policy Statement on land transport 2018 outcomes.
19. A key component in the base package is improvements in public transport in the central city and to the north. One of the key problems identified as part of LGWM is the lack of capacity on the existing public transport system, especially through the central city. This results in slower and less predictable journey times. Additionally, growth in public transport demand due to mode shift is expected to exceed current capacity by 2025. This is in the absence of any further mode shift encouraged by LGWM initiatives.
20. Public transport in the central city and the north is a necessary part of the LGWM package for two main reasons, which are set out below.

*Light rail will only replace half of the bus services operating through the central city*

21. An investment in light rail will help to address growth in public transport demand and encourage mode shift by increasing the capacity of vehicles running through the central city. However, the proposed light rail investment (from Wellington Railway Station to Newtown and the airport) will only replace around half of the bus services currently operating through the central city. To serve areas to the north and west in particular, bus access through the central city needs to be maintained and enhanced. For this reason, a dual public transport spine is necessary.

22. The LGWM analysis has concluded that the Golden Mile should be retained as the primary bus spine, with light rail along the waterfront quays (see Figure 2). The public transport (city and north) investment provides for this by providing high quality, high frequency, bus priority services that complement light rail.

Figure 2 – proposed LGWM public transport spine



*Increased public transport services are necessary to support the construction of light rail*

23. The public transport (city and north) investment is an important prerequisite to light rail on the waterfront quays. This is because road space along the quays will be reallocated to the light rail corridor, and as a result, the capacity for general traffic will be reduced.
24. Light rail is expected to take around 13 years to complete, and an increase in the public transport offering from other parts of the region (especially from the north) is necessary to accommodate the increased demand resulting from the reduction in road capacity and future demand growth. Without the proposed city and north public transport improvements, the capacity of the public transport system will not be sufficient to enable the required mode shift to allow for the construction of light rail.

*The walking and cycling components also complement light rail*

25. The proposed walking and cycling improvements will also help to enable mode shift by providing safer, more attractive alternatives into and through the central city. This is important for achieving the necessary mode shift to allow for the construction of light rail, and to ensure maximum utilisation of light rail once it is complete. Walking is an important part of every public transport journey and it is important to provide attractive walking access to the light rail corridor.

You should discuss the base package with the LGWM Governance Group

26. We have had messaging from WCC and GWRC officers that local politicians may not support a LGWM package that does not include the base package components. If your preference is to exclude these projects from the LGWM package, we suggest you discuss this with the LGWM Governance Group.

**We have considered a range of investment scenarios for the Wellington region**

27. You requested that we consider the NLTF implications of a range of investment scenarios for the Wellington region that focused on your priorities for LGWM, including a scenario without light rail to the airport and high and low non-LGWM regional investment options. Given the importance of the base package we have also considered scenarios that would deliver your priorities alongside the base package. Table 2 outlines these scenarios.

Table 2 – Investment scenarios for the Wellington region (green boxes are included in the package, red ones are not)

Projects	Scenario						
	A	B	C	D	E	F	G
Light rail: Railway Station to Newtown	Green	Green	Green	Green	Green	Green	Green
Light rail: Newtown to Airport	Green	Green	Red	Red	Green	Red	Green
Unblocking the Basin Reserve	Green	Green	Green	Green	Green	Green	Green
Second Mount Victoria Tunnel and four laning at Ruahine Street	Green	Green	Green	Green	Green	Green	Green
High non-LGWM regional investment package	Green	Red	Green	Red	Red	Red	Green
Low non-LGWM regional investment package	Red	Green	Red	Green	Green	Green	Red
LGWM base package (excluding Basin reserve) <sup>2</sup>	Red	Red	Red	Red	Green	Green	Green
<b>NLTF cost (\$m)</b>	<b>5,094</b>	<b>4,149</b>	<b>4,761</b>	<b>3,816</b>	<b>4,477</b>	<b>4,156</b>	<b>5,422</b>

Historical increases in NLTF revenue have exceeded inflation

28. Increases in NLTF revenue result from the combination of increases in both vehicle kilometres travelled (VKT) and increases in fuel excise duty (FED) and road user charges (RUC) rates. NLTF modelling includes forecast growth in VKT, but growth at this level is not

<sup>2</sup> Excludes unblocking the Basin Reserve as this is included as one of your four priorities for LGWM.

guaranteed and is influenced by economic conditions. Mode shift may also influence VKT growth in the future.

29. Increases in FED rates over the life of the NLTF have been lumpy, but over the last ten years, governments have increased FED rates<sup>3</sup> by an average of 3.5 percent per year, which is greater than the rate of inflation during that period.
30. We estimate that if FED rates are increased by approximately 2 percent per year<sup>4</sup> for the next 24 years, and VKT grows as currently forecast during that period, there would be sufficient NLTF revenue to fund any of the scenarios in Table 2. This is shown in Table 3.
31. However, a fall in level of economic activity has previously been associated with a reduced rate of VKT growth. If such a fall in the levels of economic activity were to occur during the next 24 years, it may be necessary to increase FED by more than 2 percent in those years. Increasing FED by greater than usual amounts creates the risk of compounding the negative effects of low economic growth.
32. To give you an idea of a scenario where economic conditions are less favourable and/or VKT growth is lower than what is forecast due to mode shift, we considered a case where FED rates are increased by 1 percent per year for the next 24 years<sup>5</sup>. This would only provide sufficient revenue to fund Scenario D as shown in Table 3. Scenarios B and F have relatively low revenue shortfalls under this approach, so may also be fundable with some reprioritisation.

Table 3 – NLTF implications of scenarios 30 years<sup>6</sup>

Scenario	Low NLTF increase (1%) (\$m)	High NLTF increase (2%) (\$m)
A	-1,654	686
B	-255	2,085
C	-1,063	1,278
D	337	2,677
E	-801	1,539
F	-249	2,091
G	-2,200	140

### Increasing NLTF revenue to deliver LGWM will provide additional revenue for the rest of the country

34. We have modelled the affordability of LGWM based on the Wellington region receiving 11 percent of NLTF revenue over the funding period. If you increase NLTF revenue to fund

<sup>3</sup> Combined with equivalent increases in RUC rates.

<sup>4</sup> Our modelling assumes rate increases commence at year 2024/2025.

<sup>5</sup> Assumes FED rate increases commence in year 2024/2025 and that VKT grows as is currently forecast during the period of rate increases.

<sup>6</sup> Negative numbers indicate a funding shortfall, and positive numbers indicate a funding surplus.

LGWM, the Wellington region will only receive 11 percent of the additional revenue resulting from the increase. This means that you will have additional revenue to spend across the rest of the country.

35. GPS 2018 is deliverable under current NLTF revenue assumptions<sup>7</sup>. However, you have signalled a range of other investment priorities outside of GPS 2018 which are unlikely to be deliverable under current NLTF revenue assumptions. Increasing NLTF revenue to fund LGWM could help deliver these investments.
36. We are currently preparing advice on your other priorities and will have a conversation with you on this matter shortly.

### **Recommendation**

37. The recommendation is that you:

- (a) **discuss** the contents of this briefing with officials. Yes/No

Withheld to protect privacy of individuals

██████████  
██████████, Demand Management and Revenue

**MINISTER'S SIGNATURE:**

**DATE:**

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<sup>7</sup> This includes the planned increases in FED and RUC in 2019 and 2020.