



Response to the Councils' proposal for Let's Get Wellington Moving

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| Reason for this briefing | You requested advice on Wellington City Council's (WCC) and Greater Wellington Regional Council's (GWRC) revised proposal for Let's Get Wellington Moving (LGWM) that they presented to you on 19 December 2018. You also requested further advice on the costs and wider benefits of each component in the LGWM programme and the results alignment of each component with the Government Policy Statement on land transport 2018. |
| Action required | Agree on an approach for taking LGWM forward with WCC and GWRC. Note you are meeting with the LGWM Governance Group on 31 January 2019. |
| Deadline | 31 January 2019. |
| Reason for deadline | You have indicated that you would like to take a paper to your Cabinet colleagues as soon as possible so that you can make an announcement on LGWM. We need you to agree an approach with WCC and GWRC for us to prepare a draft Cabinet paper for you. |

Contact for telephone discussion (if required)

| Name | Position | Telephone | First contact |
|-----------------|---|------------|---------------|
| Bryn Gandy | Deputy Chief Executive, Strategy and Investment | [REDACTED] | |
| Marian Willberg | Manager, Demand Management and Revenue | [REDACTED] | ✓ |
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MINISTER'S COMMENTS: Withheld to protect privacy of individuals

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|-------------------|--|-------------------------|---------------|
| Date: | 25 January 2019 | Briefing number: | OC190017 |
| Attention: | Hon Phil Twyford (Minister of Transport) | Security level: | 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Withdrawn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. You have indicated that you would like to make an announcement on Let's Get Wellington Moving (LGWM) at the beginning of 2019. To do this, you will need to reach agreement with Wellington City Council (WCC) and Greater Wellington Regional Council (GWRC) on how LGWM will be taken forward.
2. Once you have agreed an approach, we will provide you with a draft Cabinet paper so you can discuss the way forward on LGWM with your Cabinet colleagues prior to making a public announcement.
3. This briefing responds to your request for further information to assist you in your discussions with WCC and GWRC including:
 - 3.1. the Ministry of Transport's (the Ministry) advice on WCC's and GWRC's revised proposal for LGWM that was presented to you on 19 December 2018
 - 3.2. information on the costs and wider benefits of each component in the LGWM programme and how each component aligns with the Government Policy Statement on land transport (GPS) 2018.

Executive summary

4. On 4 December 2018 you met with WCC and GWRC to discuss your preferred approach for LGWM, which included the components to be progressed as part of phase one and cost sharing arrangements between central and local government.
5. Following this meeting, WCC and GWRC highlighted a number of concerns with your preferred approach and presented you with a revised proposal in response to these concerns on 19 December 2018. The key changes in the revised proposal are:
 - 5.1. Different revenue growth assumptions, which anticipate an additional \$4.18 billion dollars over 30 years compared with the Ministry's NLTF forecast.
 - 5.2. Two alternative options for sharing the costs of the package between central and local government centred on a 'partnership approach'. These options include both phase one and phase two components.
 - 5.3. Commitment from central and local government to implement the whole package (both phase one and phase two components) over 30 years and funding it over 50+ years.
 - 5.4. A reduced state highways package to be delivered within a budget envelope of \$800 million (the original proposal was \$1.8 billion). This involves re-scoping the second Terrace tunnel and the undergrounding at Te Aro.
 - 5.5. Resequencing of Regional Land Transport Plan (RLTP) projects in decades two and three. This would need to be formally agreed with other councils in the Wellington Region.

- 5.6. 1 percent per annum general rates increases for 13 years (the original proposal was 10 years)¹.
6. WCC's and GWRC's NLTF modelling does not align with the Ministry's NLTF forecasting practices. We are concerned that their modelling does not account for future uncertainties and is likely to be overly optimistic. We do not believe there are grounds to use different NLTF modelling assumptions for the Wellington Region than for the rest of the country and consider that it would be very risky to make investment decisions based on these assumptions.
7. Section 95 of the Land Transport Management Act 2003 (the Act) guarantees the statutorily independent functions of the New Zealand Transport Agency (NZTA). This means that the NZTA Board has final decision making rights on matters such as the inclusion of projects in the National Land Transport Plan (NLTP) and the amount of NLTF funding they receive. For projects to be approved, the Board must be confident in the quality and the deliverability of the projects.
8. If you wish for certain LGWM components to progress and/or be funded under alternative arrangements to the status quo, you can indicate that preference to the NZTA Board for it to consider when making investment decisions. You could do this by referencing LGWM as a priority in the GPS – similar to the approach used for the Auckland Transport Alignment Project (ATAP).
9. At your request, the NZTA and the LGWM working group carried out analysis to determine the costs and wider benefits of each of the components of the whole LGWM programme, and the alignment of the components with the results alignment of GPS 2018. To date, this analysis has been carried out based on the programme as a whole. This is because many of the programme components have interdependencies and, due to network effects, greater benefits will accrue when these components work together than when they are viewed in isolation.
10. Due to time constraints and the early stage in the design of many of the components, this analysis is relatively high level. However, it does show that some components have high benefits and align closely with GPS 2018. Whereas, the benefits of other components are not fully realised when they are viewed in isolation.
11. WCC and GWRC have indicated that they are committed to funding their share of LGWM, which will involve them leveraging multiple funding tools. The ability for them to leverage these tools is subject to public consultation, so there is a potential risk that public opposition could prevent some or all of the funding tools being used to the extent WCC and GWRC plan to.
12. WCC and GWRC have highlighted their preference for the Government's commitment to both phases of LGWM, which includes a significantly reduced state highways package. At this stage there is a low level of certainty of what the reduced state highways package would look like. Additionally, delivering the first phase of LGWM will significantly constrain the Wellington Region's 'population share' of NLTF revenue over the next 30 years.
13. Given the risks outlined above, we believe it is very likely that if you agree to support the whole LGWM programme, WCC and GWRC will come back to you requesting additional funding if the costs of LGWM increase and/or they require additional transport investment outside of LGWM over the medium- to long-term.

¹ This increase is to support LGWM and would be in addition to any other required rates increases.

14. Our advice is that you:
- 14.1. reconfirm the LGWM funding envelope with WCC and GWRC based on the Ministry's NLTF forecast (\$1.45² billion in NLTF revenue as set out in your preferred option)
 - 14.2. reconfirm your investment priorities for LGWM with WCC and GWRC – these are set out in your preferred approach
 - 14.3. indicate to WCC and GWRC that you want a high level of certainty of the costs and benefits of the scaled-back state highway projects before you will support those projects.
15. Once you have reached an agreement with WCC and GWRC we will provide you with a draft Cabinet paper for you to discuss with your Cabinet colleagues ahead of making a public announcement.

Background

16. On 4 December 2018 you met with the LGWM Governance Group to discuss your preferred approach for LGWM. The approach included which programme components would be progressed as part of the first phase of LGWM and the funding split between central and local government for each component. Your preferred approach is outlined in Table 1 below. Under this approach, the first phase of LGWM would be delivered within ten years and funded over 30 years.
17. As part of your preferred approach you indicated that you wanted to explore options to share the value uplift resulting from light rail between central and local government.

Table 1 – Your preferred approach for LGWM

| Programme component | Capex \$m | Local share (\$m) | Central share (\$m) |
|--|-----------|-------------------|---------------------|
| <i>Components to be funded under current FAR (51%)</i> | | | |
| A Walkable city | 84 | 41 | 43 |
| Connected cycleways | 36 | 18 | 18 |
| Public transport (City and North) | 324 | 159 | 165 |
| Smarter transport network | 36 | 18 | 18 |
| Smarter pricing | 36 | 18 | 18 |
| <i>Components to be funded 100% by central government</i> | | | |
| Light rail: Railway Station – Newtown | 1,188 | 0 | 1,188 |
| <i>Components to be funded 100 percent by local government</i> | | | |
| Unblocking the Basin Reserve | 156 | 156 | 0 |

² Excludes financing costs.

| | | | |
|--|--------------|------------|--------------|
| Second Mount Victoria Tunnel and four laning at Ruihine Street | 577 | 577 | 0 |
| Total | 2,436 | 987 | 1,450 |
| Percentage | 100% | 40% | 60% |

18. The remaining components to be further investigated as part of a second phase of LGWM were:

| Programme component | Capex (\$m) |
|---|--------------|
| Light rail: Newtown to Airport | 540 |
| Undergrounding at Te Aro | 1,320 |
| Second Terrace Tunnel, and a fourth southbound lane between Ngauranga and Aotea | 480 |
| Total | 2,340 |

19. At the 4 December meeting you also informed the Governance Group that your expectation is that the Wellington Region could presume to get no more than roughly its 'population share' of NLTF revenue over the next thirty years. Taking into account current and future population growth projections, this is estimated to be around 10 percent.
20. Modelling carried out by WCC and the NZTA showed that based on current cost estimates and other likely regional investments, there would be a \$1.25 billion shortfall in delivering your preferred approach for the first phase of LGWM over 30 years. The modelling used a 2 percent inflator to account for projected growth in vehicle kilometres travelled (VKT) and conservative increases in petrol excise duty (PED) and road user charges (RUC).

WCC and GWRC came back to you with a revised proposal

21. WCC and GWRC had the following concerns with your preferred approach:
- 21.1. they believed that the NLTF forecast should factor in growth in VKT and future unplanned increases in PED and RUC
 - 21.2. they were concerned the modelling carried out by NZTA/WCC indicated there would be an inability for both the central and local government funding sources to support LGWM beyond the first phase – they were particularly concerned about the light rail extension from Newtown to the Airport not progressing
 - 21.3. all of WCC and GWRC's identified funding sources would be required to deliver just phase one of LGWM
 - 21.4. [REDACTED]

Withheld as free and frank advice

22. WCC and GWRC want to explore a partnership approach for cost sharing and would prefer that a co-funding approach is taken for the whole programme rather than breaking it down into components.
23. On 19 December 2018, you met with the WCC Mayor and the GWRC Chair, who are members of the LGWM Governance, and council officers. They presented you with a revised proposal. The key changes in WCC and GWRC's proposal are listed below.
 - 23.1. A VKT growth assumption and increases in PED and RUC included in the NLTF forecast. This assumes in an additional \$4.18 billion dollars after 30 years compared with the Ministry's NLTF forecast.
 - 23.2. Two alternative options for sharing the costs of the package between central and local government centred on a 'partnership approach'. These options include both phase one and phase two components.
 - 23.3. Commitment from central and local government to implementing the whole package (both phase one and phase two components) over 30 years and funding it over 50+ years.
 - 23.4. A reduced state highways package to be delivered within a budget envelope of \$800 million (the original proposal was \$1.8 billion). This involves re-scoping the second Terrace tunnel and the undergrounding at Te Aro.
 - 23.5. Resequencing of RLTP projects in decades two and three. This would need to be formally agreed with other councils in the Wellington Region.
 - 23.6. 1 percent per annum general rates increases for 13 years (the original proposal was 10 years).
24. The following paragraphs in this briefing address the points above.

WCC and GWRC's NLTF modelling does not align with the Ministry's NLTF modelling

25. As you are aware, PED and RUC only increase if the government of the day decides to increase them, which involves changing legislation or regulations. Therefore, it is not possible to accurately forecast the growth in NLTF revenue that could be attributed to increases in PED and RUC that may or may not be made by future governments. Because of this, the Ministry's NLTF forecast only factors in planned PED and RUC increases and forecast growth in VKT.
26. While it is reasonable to assume that PED and RUC rates will increase over the next 30 years, there are many uncertainties surrounding what will happen to NLTF revenue over the long term, including the impact of economic cycles, general cost growth and the sustainability of our current revenue system.
27. The Ministry's NLTF forecast accounts for both the potential upsides and downsides of NLTF growth in the medium- to long-term. In WCC and GWRC's proposal, they used the Ministry's NLTF forecast and added an inflator for increases in PED and RUC. This assumes in an additional \$4.18 billion dollars after 30 years compared with the Ministry's NLTF forecast.
28. WCC and GWRC's NLTF forecast is not realistic as it does not account for potential downsides in NLTF revenue growth over the next 30 years. For this reason, our advice is that there are no grounds to use a different set of assumptions to model NLTF revenue growth for the Wellington Region than what is used for the rest of the country. It would not be

pragmatic to make investment decisions based on the NLTF modelling provided by WCC and GWRC.

You can signal LGWM as a priority to the NZTA Board

29. The Act provides the legal framework for managing and funding land transport activities, including the respective roles and functions of different agencies. The Act states that the NZTA has statutory independence to determine whether particular activities or combinations thereof should be included in the NLTP.
30. WCC and GWRC have expressed that they would like ‘commitment’ from central government to LGWM. While central government can be supportive of the LGWM programme, you do not have the ability to commit to funding individual projects from the NLTF.
31. For any land transport project to receive funding from the NLTF, it must be assessed for inclusion in the NLTP by the NZTA Board. Projects are assessed against the Investment Assessment Framework (IAF) according to their value for money and alignment with the priorities, objectives and expected results within the GPS.
32. If you wish certain LGWM components to progress, you can indicate that preference to the NZTA Board for it to consider when making investment decisions. You could do this by referencing LGWM as a priority in the GPS – similar to the approach used for the Auckland Transport Alignment Project (ATAP)
33. When you make an announcement on LGWM, it is important to note that all projects and funding are still subject to approval by the NZTA Board.

You can signal your preferred cost-sharing arrangements to the NZTA Board

34. WCC and GWRC have indicated that they are not comfortable with the funding split being determined on a component basis, and that they would prefer a co-funding approach for the whole programme. This is particularly in relation to the proposition for central government to fund 100 percent of light rail and for local government to fund 100 percent of some of the state highway components.
35. Given that the NZTA Board has responsibility for deciding which projects are funded through the NLTF, it also has the final say on cost-sharing arrangements when NLTF revenue is involved. It is important to note that if a project is approved by the NZTA Board, you do not have the ability to prevent it receiving NLTF funding.
36. However, if you wish for certain LGWM components to be funded under alternative arrangements to the status quo, you can indicate that preference to the NZTA Board, which it will consider when making investment decisions.
37. You have indicated that you wish to explore alternative cost-sharing arrangements for some of the LGWM state highway components. Under standard funding arrangements, state highways are funded entirely by the central government through the NLTF. However, there are two other options:
 - Local government could make a contribution to the capital costs of the state highway. NZTA would own the state highway and be responsible for ongoing operating costs, or local government could make a contribution to the ongoing operating costs.
 - Local government could fund 100 percent of the capital costs of the state highway. NZTA would own the state highway and be responsible for ongoing operating costs, or local government could make a contribution to ongoing operating costs.

There are varying benefits for the individual programme components

38. At your request, the NZTA and the LGWM project team assessed the costs and benefits of the LGWM programme components. The assessment applied the NZTA's Economic Evaluation Model (EEM), including wider economic benefits, and also accounted for land value uplift. A full breakdown of the results is included as an appendix.
39. To date, costs and benefits of LGWM have been assessed on the whole programme. This is because many of the programme components have interdependencies and, due to network effects, greater benefits will accrue when these components work together than when they are viewed in isolation.
40. Given time constraints, the analysis of the individual programme components has been undertaken at a high level based on previous assessments undertaken during the process of developing the LGWM programme. Specific benefit-cost-ratios (BCR) have not been determined, but an indication of a likely BCR is included. This is based on the analysis to date and the LGWM working group's professional judgement.
41. The results of this analysis can be used to inform your investment priorities for LGWM. The next stage will involve the development of more detailed business cases for the preferred components. This would include a more detailed assessment of options for each programme component and their benefits and costs.
42. The table in the appendix can be summarised as follows. When the programme components are considered in isolation, the walkable city, connected cycleways, public transport City and North, smarter pricing and smarter transport network components are likely to have high BCRs that are greater than 3; Unblocking the Basin Reserve and light rail: Railway Station – Newtown are likely to have medium BCRs of 1-3 and 1 respectively; and light rail: Newtown – Airport, Mount Victoria/Ruahine, undergrounding at Te Aro, the second Terrace tunnel and Ngauranga – Aotea are likely to have BCRs of 1 or less.
43. It is important to note that the benefits of some of the LGWM programme components are materially influenced by the way in which other components are configured. This is particularly the case for light rail. It is therefore important to retain the flexibility to review each programme component in light of decisions made about other components of the programme to ensure that the LGWM programme is configured in a way that provides the best value for money and best meets objectives.

The majority of the LGWM programme components rate highly against the GPS 2018 priorities

44. The NZTA has assessed the components of the whole LGWM programme against the results alignment with GPS 2018, which together with the BCRs, are the two factors used in the IAF. The results are listed in Table 2 below.
45. The components have been considered in isolation and it should be noted there is significant overlap and interdependency between the components which would result in a different assessment outcome when considered as a programme.

Table 2 – NZTA assessment of programme components against the results alignment of the GPS

| Component | Rating | Reason |
|------------------|---------------|--|
| Walkable city | High | Supports mode shift and multi-modal plans. Some routes may be found to be lower priority during later investigation phases (eg limited multi-modal and retail focused outcomes). |

| | | |
|---------------------------------------|---------------|--|
| | | On balance, the overall results alignment rating is probably high. |
| Connected cycleways | High | Improves several critical strategic links in the cycle network for access, as well as improving actual and perceived safety. |
| Public transport: City | High | Catering for growth in public transport demand supports the agreed multi-modal plans and mode shift. |
| Public transport: North | High | Catering for growth in public transport demand supports the agreed multi-modal plans and mode shift. |
| Unblocking the Basin Reserve | High | The issues related to multi-modal conflict at the Basin Reserve are of high significance. The final solution needs to match the wider programme. For example, grade separation may be deferrable if a parallel mass transit route results in significantly fewer buses and other traffic around the Basin Reserve. |
| Mount Victoria/Ruahine | High | The issues related to multi-modal access to the east and a resilient transport system are of high significance. The final solution needs to match the wider programme. For example, tunnel duplication may be deferrable if a parallel mass transit route creates an additional link elsewhere. |
| Smarter pricing | High | Targets mode shift and incentivises ride sharing. |
| Smarter transport network | Medium - high | Additional investigation is needed to confirm how network operations will be managed and delivered. Individual projects, such as Mobility as a Service, might be very high. |
| Light rail: Railway station - Newtown | Very high | Step change in access for large numbers of people, coupled with land use transformation and transit oriented development. Note this component includes wider bus route changes necessary to support mass transit. |
| Light rail: City to Airport | High | Step change in access for large numbers of people with some opportunities for land use changes in Miramar. |
| Undergrounding at Te Aro | Medium | Some corridor safety issues and opportunities to support land use planning. May be required for realising wider programme outcomes. If so, this will be assessed with the results alignment of the wider programme. |
| Second Terrace Tunnel | Low | May be required for enabling wider programme outcomes. If so, this will be assessed with the results alignment of the wider programme. |
| Ngauranga - Aotea | Low | May be required as part of Multi-User Ferry Terminal or for wider programme public transport outcomes. If so, this will be assessed with the results alignment of the wider programme. |

46. While the results in the table above show relatively high alignment with GPS 2018, it is important to note that only the results alignment part of the IAF was used for this assessment. To receive NLTF funding, these components would need to be assessed

against both parts of the IAF, as well as being prioritised for available funding against projects in other regions. Due to the time constraints and the early stage in the development of each of the components, this level of assessment was not possible at this stage.

Public opposition is a potential risk for WCC and GWRC funding their share of LGWM

47. WCC and GWRC have indicated that they are committed to funding their share of LGWM,
[REDACTED] Withheld to enable future negotiations
[REDACTED]
[REDACTED]
[REDACTED]
48. For local government to increase rates, the increase must be included in the Long Term Plan (LTP), which sets out all of the things council wants to do over a ten year period. The LTP is reviewed every three years, and the public is given a chance to express their views on the LTP.
49. Given the need for public consultation, there is a risk that public opposition could prevent the necessary rates increases to enable WCC and GWRC to fund their share of LGWM. WCC and GWRC would also need to consult the public if they were to implement a parking levy or cordon charge. Legislation would be required to enable a cordon charge.
50. As part of your preferred approach you indicated that you wanted to explore options to share the value uplift resulting from light rail between central and local government. WCC and GWRC have indicated that they will need all of the revenue from value uplift to fund their share of the programme. Further discussions with local government will be required if you wish to pursue this approach.

There is a low level of certainty of what the second phase of LGWM would look like

51. In their revised LGWM proposal, WCC and GWRC highlighted their desire to have central government commitment to the entire LGWM programme. As mentioned above, central government can support the programme, but the projects must be approved by the NZTA Board for inclusion in the NLTP.
52. WCC and GWRC have proposed that the whole programme could be delivered over 30 years and funded over 50+ years. In addition to the components that would be delivered under the first phase of your preferred approach, this would mean committing to light rail from Newtown to the Airport and the state highway package.
53. WCC and GWRC have proposed a reduced state highway package that would involve scaling down the improvements on State Highway 1 between Ngauranga and the Basin reserve, including changes to the proposed treatment of the state highway through Te Aro. This package would be delivered within a budget envelope of \$800 million, down from the original cost of \$1.8 billion.
54. The LGWM working group is currently working on options for the scaled down approach. The working group has indicated it would expect that a scaled back option could be considerably less expensive than the full undergrounding through Te Aro, but deliver a reasonable proportion of the transport benefits, which should improve the overall value for money.

There are high risks associated with supporting the whole LGWM programme

55. Work on the reduced state highways package is still at a relatively early stage and we have not seen any of the potential options. We believe there is a high risk that WCC and GWRC

- will either not be able to compress the package to fit within an \$800 million envelope and/or the benefits of the package will not outweigh the costs.
56. The Wellington Region's 'population share' of the NLTF will be stretched very tightly to deliver your preferred approach for phase one of LGWM. There is little-to-no room for cost escalation and no agreement as to who will bear such costs. Because many of the LGWM components are at a relatively early stage of project design, there is a high risk that costs will escalate.
 57. Any other transport investment in the Wellington Region over the next 30 years will be significantly constrained as a result of funding the first phase of LGWM. Committing to the entire programme is likely to further constrain other transport investment in the Wellington Region for 50 years or more.
 58. Given the risks outlined above, we believe it is very likely that if you agree to support the LGWM programme, WCC and GWRC will come back to you requesting additional funding if the costs of LGWM increase and/or they require additional transport investment outside of LGWM over the medium- to long-term.
 59. Additionally, for the NZTA Board to be in a position to approve projects for NLTF funding it needs more certainty over costs than what is currently available for LGWM. We also do not believe that the NZTA Board will make any funding decisions based on WCC and GWRC's NLTF modelling.

Next steps

60. Our advice is that you:
 - 60.1. reconfirm the LGWM funding envelope with WCC and GWRC based on the Ministry's NLTF forecast (\$1.45³ billion in NLTF revenue as set out in your preferred option)
 - 60.2. reconfirm your investment priorities for LGWM with WCC and GWRC – these are set out in your preferred approach
 - 60.3. indicate to WCC and GWRC that you want a high level of certainty of the costs and benefits of the scaled-back state highway projects before you will support those projects.
61. Once you have agreed an approach for LGWM with WCC and GWRC, we recommend you consult the NZTA Board, your Cabinet colleagues and WCC and GWRC decision makers to agree on what you can announce publicly.
62. To assist you in your conversations with your Cabinet colleagues, we will provide you with a draft Cabinet paper for you to take to Cabinet on 11 March 2019.
63. For your consultation with the NZTA Board, we will provide you with a draft letter to the Chair of the Board notifying the Board of the content of your announcement.
64. This is unlikely to be the result WCC and GWRC are after. However, given that WCC and GWRC's NLTF modelling is not consistent with the Ministry's NLTF modelling and it is the responsibility of the NZTA Board to make decisions on whether certain projects receive NLTF funding, we believe this is the most pragmatic approach.

³ Excludes financing costs.

Recommendation

65. The recommendation is that you:

- (a) **discuss** the next steps with Wellington City Council and Greater Wellington Regional Council. Yes/No

Marian Willberg
Manager, Demand Management and Revenue

MINISTER'S SIGNATURE:

DATE:

BRIEFING

Appendix – Initial assessment of costs and benefits of individual programme components

| Component | Results alignment with GPS | Dependencies and linkages | Contribution to LGWM Investment Objectives | | | | | Cost \$m (discounted) | Contribution to benefits | | Value For money |
|------------------------------|---|--|--|---|---|---|---|-------------------------------------|---|--|--|
| | | | Enhances liveability of the central city | Provides more efficient and reliable access to support growth | Reduces reliance on private vehicle travel | Improves safety | Adaptable to disruptions and future uncertainty | | Estimated Individual Benefit \$m (discounted) | Estimated Contribution to RPI Benefit \$m (discounted) | |
| LGWM programme as a whole | High/very high – whole of programme aligns strongly with GPS | All components of the programme function together to deliver the full suite of multi modal benefits | As set out in programme business case | As set out in programme business case | As set out in programme business case | As set out in programme business case | As set out in programme business case | 2328 (including - 199 toll revenue) | N/A | 1800-3300 | LGWM programme as a whole delivers more benefits than the sum of the individual components. Overall BCR 0.7-1.4 |
| Walkable city | High - Supports mode shift and multi-modal plans. Some routes may be found to be lower priority during later investigation phases (eg limited multi-modal and retail focused outcomes). On balance, the overall results alignment rating is probably high. | Walking improvements required to unlock full potential of public transport and light rail improvements. | Delivers streetscape improvements in CBD | Improved walking access to and through the CBD | Encourages walking through infrastructure enhancements | Targeted safety improvements for pedestrians | Limited impact on network resilience | 40 | 100 – 150 | 100 – 150 | Modest contribution to economic benefits relative to full programme but likely high BCR (>3) |
| Connected cycleways | High - Improves several critical strategic links in the cycle network for access, as well as improving actual and perceived safety. | Cycleway improvements can largely be made in isolation, supported by pricing in central city which removes traffic. | Some associated streetscape improvements | Improved cycling access to and through the CBD | Encourages cycling through infrastructure enhancements | Separated cycle lanes deliver safety improvements | Increases mode choice and some new connectivity | 17 | 80 – 100 | 80 – 100 | Modest contribution to economic benefits relative to full programme but likely high BCR (>3) |
| Public transport: City | High - Catering for growth in public transport demand supports the agreed multi-modal plans and mode shift. | Public transport through the city is required to deliver the full benefits of mass transit and maximise improvements to the north. | Improvements along the golden mile | Facilitates significant service improvements | Improved capacity and frequency of buses | Supporting safety improvements | Improves mode choice | 254 (excluding rail costs) | Up to 1000 as part of wider LGWM programme | 570 – 690 | High travel time benefits for public transport users, high individual BCR anticipated (>3) |
| Public transport: North | High - Catering for growth in public transport demand supports the agreed multi-modal plans and mode shift. | Public transport to the north is required to support pricing and removal of traffic from the CBD. Supports delivery of light rail. | Limited direct impact on central city | Step change capacity improvement along highest demand corridors | Promotes mode shift through capacity improvements | Minor safety benefits by encouraging safer modes | Corridor improvement facilitates alternative travel choices | | | | High overall contribution to economic benefits, high individual BCR anticipated (>3) |
| Unblocking the Basin Reserve | High - The issues related to multi-modal conflict at the Basin are of high significance. The final solution needs to match the wider programme. For example, grade separation may be deferrable if a parallel mass transit route results in significantly fewer buses and other traffic around the Basin Reserve. | Basin reserve improvements support removal of traffic from central city through reallocation of capacity from Vivian Street. May also be required to support public transport network improvements and light rail. | Amenity improvements through streetscape works and reduced severance | Improved connectivity for all modes. Reduced modal conflict | Minor improvements for pedestrians and cyclists as well as connections with mass transit and bus routes | Safety improvements for sensitive users (school children) | Limited impact on network resilience | 76 | Not assessed in isolation | Contributes to total benefits of 400 – 800 associated with State Highway One | Travel time benefits for all modes. Good individual BCR anticipated (1-3) |
| Mount Victoria/Ruahine St | High - The issues related to multi-modal access to the east and a resilient transport system are of high significance. The final solution needs to match the wider programme. For example, | Mount Victoria tunnel supports improved walking and cycling networks and may be required to indirectly support public | Limited direct impact on central city | Improved capacity for all users to and from the eastern suburbs | Improved walking and cycling provision through new tunnel | Safer tunnel operations for all users (segregated by direction) | Second tunnel delivers significant resilience benefits | 290 | 120 – 160 | Contributes to total benefits of 400-800 associated with SH1 | Delivers travel time benefits for private vehicles, public transport (indirect benefits in Newtown and during construction), walking and |

| | | | | | | | | | | |
|---------------------------------------|---|---|---|--|--|--|---|-----------|---|---|
| | tunnel duplication may be deferrable if a parallel mass transit route creates an additional link elsewhere. | transport network improvements and light rail. | | | | | | | | cycling. Low individual BCR anticipated (<1) |
| Smarter pricing | High - Demand management tool that targets mode shift and ride sharing | Required to unlock the full benefits of light rail and other public transport network improvements. Supports improved walking and cycling networks. | Contributes to the removal of traffic resulting in amenity benefits | Removal of traffic allows improved conditions for remaining traffic | Encourages mode shift by increasing cost of private motoring | Safety improvements through traffic volume reduction | Limited impact on network resilience | 19 | Not assessed in isolation but likely to deliver similar benefits (270-360) to interventions considered as part of wider programme | Significant travel time benefits for private vehicles and public transport. High individual BCR anticipated (>3) |
| Smarter transport network | Medium/High - Additional investigation is needed to confirm how network operations will be managed and delivered. Individual projects, such as Mobility as a Service, might be very high. | Network operations improvements can be made in isolation, but will support the delivery of light rail and other public transport improvements | Limited impact on central city liveability | Improved network operations results in improved efficiency for all modes | Some improvements to public transport operations | Improved operations, network monitoring and accident response | Improved network management allowing quicker recovery | 19 | 270 – 360 | Benefits for private vehicles and public transport. High individual BCR anticipated (>3) |
| Light rail: Railway Station – Newtown | Very High - Step change in access for large numbers of people, coupled with land use transformation and transit oriented development. Note this component includes wider bus route changes necessary to support mass transit. | Requires programme of wider interventions to unlock full potential. This includes land use, regulatory and network considerations. | High quality public transport infrastructure and associated streetscape improvements | Improved reliability due to separation. Encourages significant economic development | Encourages significant shift to public transport – step change increase in access capacity | Safer mode of transport, contributes to reduction in traffic | Additional mode provides improved network resilience | 646 | 400 – 900 if constructed as part of the wider LGWM programme. Most benefits anticipated in station to Newtown section | Delivers high value uplift benefits and some economic efficiency (travel time) benefits. Modest individual BCR anticipated due to high costs (approximately 1) |
| Light rail: Newtown – Airport | High - Step change in access for large numbers of people with some opportunities for land use changes in Miramar. | Requires Railway Station to Newtown light rail section. Design may require Basin and Mount Victoria tunnel improvements | Limited impact on central city liveability | Improvements in access capacity to south and east | Encourages significant shift to public transport | Safer mode of transport, contributes to reduction in traffic | Additional corridor and new tunnel under Mount Albert | 285 | | Delivers modest value uplift benefits and some travel time benefits. Low individual BCR (<1) anticipated due to high costs and requirement for some passengers to transfer from bus to light rail |
| Undergrounding at Te Aro | Medium – Some corridor safety issues and opportunities to support land use planning. May be required for realising wider programme outcomes. If so, this will be assessed with the results alignment of the wider programme. | Supports removal of traffic from the CBD and delivery of public transport and walking and cycling improvements in combination with other SH1 corridor improvements. | Significant removal of traffic from CBD supports revitalisation of Te Aro. Urban amenity benefits | Improved access for walking, cycling and regional destinations (hospital and airport). | Limited impact on mode share in isolation – provides opportunities for reduced severance | Reduced conflicts lead to improved safety outcomes for all modes | Some increased resilience due to reduced conflicts and new corridor | 643 | | Delivers travel time benefits (mainly for private vehicles) and modest value uplift benefits. Low individual BCR (<1) anticipated due to high cost |
| Ngauranga – Aotea | Low - May be required as part of Multi-User Ferry Terminal or for wider programme public transport outcomes. If so, this will be assessed with the results alignment of the wider programme. | May be required to deliver multi user ferry terminal at Kaiwharawhara. | Limited impact on central city liveability | Improved capacity and travel time reliability on highest demand corridor | Limited impact on mode share – may facilitate public transport improvements on SH1 | Safety improvements due to reduced weaving on Hutt Road | Resilience improved due to strengthened sea wall | 275 – 500 | Contributes to total benefits of 400 – 800 associated with SH1 | Delivers travel time benefits for private vehicles and freight. Modest individual BCR (approximately 1) anticipated |
| Second Terrace Tunnel | Low - May be required for enabling wider programme outcomes. If so, this will be assessed with the results alignment of the wider programme. | Supports removal of traffic from the CBD and delivery of public transport and walking and cycling improvements. Connected to other SH1 corridor improvements. | Supports removal of traffic from CBD | Removes significant network bottleneck | Limited impact on mode share – removal of traffic improves CBD public transport operations | Safety improvements due to directional segregation in tunnels | New tunnel provides additional corridor | | | Delivers travel time benefits for private vehicles. Modest individual BCR anticipated (approximately 1) |