

Office of the Minister of Finance  
Office of the Minister of Transport  
Cabinet Economic Development Committee

## Let's Get Wellington Moving - Transformational Programme: Preferred Option Progress and Mass Rapid Transit Funding Principles

### Proposal

- 1 This paper:
  - 1.1 provides an outline of progress on Let's Get Wellington Moving (LGWM) since Cabinet last endorsed the programme in 2019
  - 1.2 provides an outline of the key considerations required before a final decision on a preferred Transformational Programme option can be made
  - 1.3 seeks Cabinet direction on option selection
  - 1.4 provides an outline of urban development dependencies
  - 1.5 seeks agreement on how to progress mass rapid transit (MRT) funding decisions
  - 1.6 seeks acknowledgement that this work will inform the agreement of a central-local government split of the MRT component of LGWM.

### Relation to government priorities

- 2 This Cabinet paper supports the Labour manifesto commitment to continue progressing the Let's Get Wellington Moving programme.
- 3 The Government has declared a climate emergency and has committed to urgent action to reduce emissions. Enactment of the Climate Change Response Amendment Act in 2019 has set a target for New Zealand to achieve net zero emissions by 2050.
- 4 The Government's Emissions Reduction Plan includes:
  - 4.1 reducing reliance on cars and supporting people to walk, cycle and use public transport
  - 4.2 reducing total kilometres travelled by the light vehicle fleet by 20 per cent by 2035 through improved urban form and providing better travel options, particularly in our largest cities.
- 5 Transport is the biggest source of emissions in the Wellington region, accounting for 40 percent of all emissions in the region, and 48 percent of emissions in Wellington City. Between 2001 and 2019, total transport emissions rose by 14 percent. The current pathway does not put the city or region on track to help meet national emission targets.

- 6 Achieving a significant increase in public transport and active mode share will be challenging in the Wellington region as these modes are already relatively popular. Investment needs to be transformative in a way that shapes future land use. As our population grows, we need even more people in the region to live in locations close to the things they need, so they can travel shorter distances and can choose active modes or public transport for more trips. MRT will enable housing in locations with good access to public transport, jobs, and community facilities. This support of higher yield developments in highly accessible areas tightly aligns with our housing, urban development and transport aims and will contribute to well-functioning urban environments.
- 7 MRT will also support key priorities of the Wellington Regional Growth Framework, namely increasing housing supply, affordability and transport choice and access. This aligns with the types of urban environments envisioned by the National Policy Statement on Urban Development 2020 (NPS-UD) – low carbon lifestyles, housing highly accessible to jobs and services by public transport

### Executive Summary

- 8 This paper outlines the progress of the LGWM programme since 2019 as well as the preliminary results of the Transformational Programme Indicative Business Case (IBC).
- 9 LGWM has made substantial progress, including setting up a standalone programme office with dedicated staff to take the programme forward, establishing a partnership with Taranaki Whānui ki Te Upoko o Te Ika and Ngāti Toa Rangatira and creating workstream focused on urban development.
- 10 As well as this the LGWM programme has made good progress on the 3-year programme, has completed IBC investigations of the City Streets Package and has started DBC investigations of the first six projects in the package with construction planned to commence in 2023. IBC investigation for smarter transport network improvements and pricing mechanisms has also been completed.
- 11 The key next steps are the completion of the Transformational Programme IBC and determining what options to progress into the Detailed Business Case (DBC) phase.
- 12 Current analysis suggests that Option 1 (South coast light rail plus a new public transport tunnel) is emerging as the preferred Transformational Programme option. However, more investigation needs to be completed on the potential of bus rapid transit (Option 2). For this reason, it is recommended that both modes are considered as part of the development of the DBC.
- 13 Additionally, economic and emissions reduction analysis demonstrates that without a significant increase in housing density along the MRT route, there is unlikely to be a sufficient return on investment. Considering this key dependency, urban development needs to be a core component of the DBC and will require cross Government input and support.

### Background

- 14 LGWM is a joint initiative between WCC, GWRC, and Waka Kotahi to make major investments over 20 years in MRT, walking and cycling, public transport and state highway improvements in Wellington city. LGWM aims to develop a transport system that provides greater liveability, including enhanced urban amenity and

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development; more efficient and reliable transport access; reduces carbon emissions by increasing mode shift away from reliance on private vehicles; improves safety for all users; and provides resilience and adaptability to disruptions and unplanned events.

- 15 The LGWM programme sits alongside a regional investment programme to significantly improve public transport, active transport modes, and shape urban form.
- 16 LGWM includes three packages:
  - 16.1 **Three-year Programme** – early improvements to start moving more people with fewer vehicles and improve travel options ahead of larger construction projects to come. This includes:
    - 16.1.1 safer speeds in the central city and on State Highway 1 (SH1) east of Mt Victoria (implemented)
    - 16.1.2 Central City walking improvements, creating a better environment for walking, to make the central city safer and a more enjoyable place to spend time in (construction underway)
    - 16.1.3 Cobham Drive crossing, making roads safer for everyone with a new crossing on Cobham Drive and safer speeds on SH1 between Mount Victoria Tunnel and the airport (construction underway)
    - 16.1.4 transforming the Golden Mile to move more people with fewer vehicles, creating space for thriving and attractive streets in the heart of Wellington (in detailed design)
    - 16.1.5 Thorndon Quay and Hutt Road improvements, transforming these roads to provide safe and reliable travel choices for everyone and create a more attractive street environment (in detailed design).
  - 16.2 **City Streets Package** – improvements over ten to twelve years on key routes between the suburban centres and the central city, improving bus reliability as well as walking and cycling experiences. This will provide options for people to get around without relying on their car and supports construction of the Transformational Programme.
  - 16.3 **Transformational Programme** – larger elements that will help shape future growth and transform Wellington, substantially change how people get around, and move more people with fewer vehicles. This includes:
    - 16.3.1 MRT south from the railway station through the central city to the southern suburbs and associated urban development
    - 16.3.2 Basin Reserve improvements and an extra Mt Victoria Tunnel (SH1)
    - 16.3.3 Smarter Transport Network – supporting MRT travel behaviour change, potentially including pricing.
- 17 In May 2019, Cabinet endorsed an Indicative Package of Investment for LGWM noting that:

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- 17.1 business cases to fully evaluate the benefits and costs had not been completed
  - 17.2 the Indicative Package components needed to be approved by the Waka Kotahi New Zealand Transport Agency (Waka Kotahi) Board
  - 17.3 approval depends on future increases in revenue into the National Land Transport Fund.
- 18 Following Cabinet endorsement, in 2019 the funding partners, Waka Kotahi, WCC, and Greater Wellington Regional Council (GWRC):
- 18.1 agreed funding to support the next steps for the programme, including sharing costs 60:20:20 respectively for the detailed investigation and development stage of the programme
  - 18.2 agreed a new Relationship and Funding Agreement between WCC, GWRC and Waka Kotahi, which included supporting LGWM's 3-year programme and including WCC and GWRC's joint bus priority action plan into LGWM's programme of work (becoming part of the City Streets Package).
- 19 Since 2019, LGWM has:
- 19.1 established a standalone programme office with dedicated staff to take the programme forward
  - 19.2 established a partnership with Taranaki Whānui ki Te Upoko o Te Ika and Ngāti Toa Rangatira
  - 19.3 completed Single Stage Business Case investigations of the projects in the 3-year programme, implemented safer speeds in the central city and on SH1 east of Mt Victoria, started construction on the Central City Walking Improvements and Cobham Drive Crossing projects, and started detailed design of the Golden Mile Transformation and Thorndon Quay/Hutt Road improvements planning to start construction in 2023
  - 19.4 completed IBC investigations of the City Streets Package and started DBC investigations of the first 6 projects in the package, planning to start construction in 2023
  - 19.5 largely completed IBC investigations for the MRT and SH1 components of the Transformational Programme
  - 19.6 completed extensive public engagement on MRT and SH1 Transformational Programme options
  - 19.7 completed IBC investigation for smarter transport network improvements (travel behaviour change) and investigated pricing mechanisms including a parking levy and congestion charging
  - 19.8 established an urban development workstream to ensure the programme maximises opportunities for urban renewal and development from the transport investment in MRT. This has also developed relationships with Te Tūāpapa Kura Kāinga Ministry of Housing and Urban Development and Kāinga Ora.

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### The programme was reset in 2020

- 20 A programme of this scale and complexity must assess, evolve, and iterate its approach throughout its lifecycle. In late 2020 the LGWM partnership board commissioned an independent health check to ensure LGWM delivers an integrated, cohesive, prioritised and outcomes-driven package of investments.
- 21 The health check recommended improvements in governance and management, people and culture, systems, and processes. The recommendations, including the appointment of an independent chair, have been implemented.

Since the implementation of the recommendations, the work of the programme has accelerated. The partners have weighted the programme objectives, construction has begun on the first elements of the 3-year programme, and region-wide public engagement on the four MRT and SHI programme options has been completed.

### What has changed since the 2019 Cabinet Paper and why?

- 22 IBC investigations of MRT and SHI confirmed the following key findings:
- 22.1 costs have risen – the Indicative Package exceeds the partners' agreed funding envelope
  - 22.2 population growth is stronger than previously assumed – especially to the North and South of the city
  - 22.3 a high degree of housing development is required to support MRT investment and drive mode shift. This will be enabled under the coming changes to Wellington City's district plan as part of the Intensification Streamlined Planning Process, but there may be a need for further government intervention to support development
  - 22.4 it is important to complete walking, biking, and bus priority improvements early to mitigate disruption during construction of MRT and SHI projects
  - 22.5 SHI projects must enable mode shift – improvements at the Basin Reserve and through Mt Victoria should support public transport, walking and cycling, and improve regional connections
  - 22.6 investigation into congestion charging has found it improves the performance of each MRT and SHI option across many evaluation criteria, further encouraging mode shift and emission reductions
  - 22.7 benefits for those who live in the North depend heavily on concurrent rail upgrades that are out of scope of LGWM. Extra capacity on commuter rail will be required to accommodate the anticipated growth in future rail patronage from the North due to the expected mode shift driven by LGWM.
- 23 As a result of these findings, the Transformational Components – MRT and SHI – were adapted into four options for public engagement.

**What are the four options for the Transformational Programme (MRT and SHI)?**

- 24 Option 1: South coast light rail plus a new public transport tunnel
- 24.1 This option includes light rail transit running along dedicated lanes from the railway station to the hospital, continuing to Island Bay through Berhampore along shared lanes. In addition, a new tunnel through Mt Victoria links the airport and Eastern suburbs to the light rail corridor through continuous bus lanes (with some shared lanes on the approach to the airport), private vehicles can also make use of this new tunnel, with one lane in each direction. Under this option, the Basin Reserve is reconfigured to support MRT, and the existing Mt Victoria tunnel is repurposed for active transport.
- 25 Option 2: Bus rapid transit to the South Coast and airport
- 25.1 Under this option bus rapid transit replaces the light rail transit of Option 1, including a new Mt Victoria tunnel out to the Airport and Eastern suburbs. As with Option 1, the new tunnel allows for private vehicle use as well. Bus rapid transit with shared lanes also connects Miramar North and Seaton to the network. As with Option 1 the Basin Reserve is reconfigured to support MRT and the existing Mt Victoria tunnel is repurposed for active transport.
- 26 Option 3: South Coast light rail
- 26.1 This option includes light rail transit running along dedicated lanes from the railway station to the hospital, continuing to Island Bay through Berhampore along shared lanes. Instead of a new Mt Victoria tunnel, Eastern suburbs and the airport are connected to the light rail network via the existing Mt Victoria bus tunnel. Eastern bus connections run along dedicated lanes through Kilbirnie but shared elsewhere. Under this option the Basin Reserve is reconfigured to support MRT and a new tunnel for active transport is built parallel to the existing Mt Victoria tunnel. The existing tunnel is retained for private vehicle use.
- 27 Option 4: South coast light rail via Taranaki St.
- 27.1 This option is the same as Option 3. However, the Basin Reserve is not reconfigured, except for minor improvements. As a result, the light rail corridor takes a different route along Tasman, Tory, and Taranaki Street.

Table 1: Transformational Programme Costs

	Option 1	Option 2	Option 3	Option 4
Programme	\$m	\$m	\$m	\$m
Mass Rapid Transit - South	2,043.5	1,215.4	2,056.6	2,139.2
Mass Rapid Transit / public transport Improvements - East	388.1	902.4	697.1	702.9
SHI - Mt Vic Tunnel	1,408.0	1,412.0	397.5	400.7
SHI - Basin Reserve	773.5	775.1	778.5	26.5
Travel Demand Management - Travel Behaviour	66.0	66.1	66.1	66.3
Travel Demand Management - Parking Levy	10.2	10.2	10.2	10.3
City Streets	530.9	531.7	534.4	539.4

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3 year programme - Golden Mile	92.7	92.7	93.3	94.4
3 year programme - Thorndon Quay & Hutt Road	54.7	54.7	55.0	55.6
3 year programme - Central City Walking Improvements	6.2	6.2	6.2	6.2
3 year programme - Cobham Crossing	5.3	5.3	5.3	5.3
<b>Total Capex</b>	<b>5,379.1</b>	<b>5,071.8</b>	<b>4,700.2</b>	<b>4,046.8</b>
<b>Whole of life costs</b>	<b>7,370.0</b>	<b>6,983.6</b>	<b>6,603.0</b>	<b>5,815.3</b>

- 28 As the Transformational Programme is in the IBC stage of investigation there is cost uncertainty including potential for scope changes and cost escalation. To mitigate this, cost forecasts use the upper range cost estimate (P95) with inflation applied.
- 29 More detail on option designs and whole of life costs are set out in Appendix 1 with corresponding maps in Appendix 2.
- 30 Almost 5,700 individuals provided feedback and 41 key stakeholder groups and organisations made full written submissions on what options they preferred.
- 31 Respondents acknowledged the housing shortage in Wellington and that MRT will help enable more housing. They also raised concerns about the nature, quality, and community impact of housing intensification.
- 32 Respondents favoured a healthier and more liveable city with better walking and cycling facilities, as well as the quick delivery of good public transport that achieves value for money.
- 33 More than half of the respondents support light rail transit because of its capacity, reliability, and frequency, as well as improved carbon performance.
- 34 The respondents who supported bus rapid transit did so largely because of its flexibility to be extended to more suburbs in the future. See Appendix 3 for public engagement key themes.

**How do the options perform?**

- 35 Options have been assessed by the LGWM programme under two different growth futures: a core land use scenario and a high land-use scenario:
- 35.1 the core land use scenario is based on current spatial plan forecast assumptions with limited intervention, and aligns to current Statistics New Zealand medium population and employment projections
- 35.2 for the high land use scenario, it was assumed that the population of the Wellington region would be the same in 2046 similar to the core land use scenario. The main difference is that the population distribution (i.e., where new growth would be located within the region) would change in response to the scenarios, focussing growth along the MRT corridor. This scenario assumes 16,000 to 20,000 additional dwellings along the MRT corridor.
- 36 A multi criteria analysis was conducted on all four options. Criterion included the LGWM programme objectives, Mana Whenua values, environmental and social

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impacts, design, delivery, and operation. In addition, sensitivity testing accounted for the potential impact of congestion charging on scores.

- 37 The core scenario analysis identified Option 2 as the technically best performing option by a small margin, primarily as it could deliver better transport accessibility, flexibility, and resilience. Multi criteria analysis scores for the core land use scenario are outlined in Appendix 4.
- 38 A multi criteria analysis based on the high land use scenario is currently being conducted. Initial indications are that Option 1 outperforms Option 2, as a high capacity MRT service is required to enable additional dwellings.
- 39 Capacity is determined by a combination of recommended frequency and vehicle size, there is a point at which too high a frequency results in degraded performance. Once those frequencies are reached, larger vehicles are required to increase capacity. LGWM modelling suggests that maximum frequency for light rail transit should be a vehicle every four minutes, and a vehicle every three minutes for bus rapid transit.
- 40 The eighteen-metre articulated vehicle considered for bus rapid transit is the maximum length for a road-legal bus in New Zealand. Although longer vehicles exist, they are not compatible with the infrastructure or operational plan proposed by LGWM. Light rail vehicles are available in several sizes. The two considered for Wellington are thirty-three metres in length (220 person capacity) and forty-three metres in length (300 person capacity).
- 41 Based on these figures the suggested maximum capacities would be 2,200 people per hour for bus rapid transit and 3,300 for light rail transit. Under the high land use scenario, a high capacity MRT service is required to the South, where the greatest amount of growth potential is, alongside improved bus performance to the East. This is supported by the approach to MRT in Option 1.
- 42 Options 3 and 4 do not include a new Mt Victoria tunnel or, in the case of Option 4, grade separation at the Basin Reserve. These options did not perform well against the investment objectives in terms of access and resilience. They are also unlikely to meet long-term public transport demand from the east (especially in the high intensity land-use scenario).
- 43 A preliminary economic analysis of the options has also been completed, calculating the benefit cost ratio (BCR) of options 1, 2, and 4. Option 3 was excluded from this analysis as it was identified as the least preferable option by a significant margin through prior analysis.



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Table 2: Preliminary CBA Results: core land use scenario (Discounted, \$2021 millions)

	Option 1	Option 2	Option 4
<b>Viability metrics</b>			
Net Present Value (NPV) (excluding agglomeration)	-\$1,896m	-\$1,634m	-\$1,317m
Benefit Cost Ratio (BCR) (excluding agglomeration)	0.46	0.51	0.53
NPV (including agglomeration)	-\$1,137m	-\$924m	-\$780m
<b>BCR (including agglomeration)<sup>1</sup></b>	<b>0.68</b>	<b>0.72</b>	<b>0.72</b>
<b>Costs</b>			
<b>Total costs</b>	<b>\$3,500m</b>	<b>\$3,312m</b>	<b>\$2,781m</b>
<b>Benefits</b>			
Public transport – travel time benefits	\$640m	\$679m	\$603m
Public transport – incremental fare revenue benefits	\$101m	\$107m	\$87m
Private vehicle – travel time benefits	\$143m	\$147m	\$135m
Private vehicle – travel time reliability benefits	\$11m	\$12m	\$9m
Private vehicle – reduction in vehicle operating costs	\$91m	\$91m	\$82m
Safety benefits	\$109m	\$112m	\$85m
Environmental Benefits - Harmful pollutant and CO2 reduction	\$31m	\$31m	\$27m
Health Benefits for additional walking trips	\$405m	\$423m	\$369m
Health Benefits for additional cycling trips	\$73m	\$76m	\$66m
Agglomeration	\$759m	\$710m	\$537m
<b>Total benefits</b>	<b>\$2,363m</b>	<b>\$2,388m</b>	<b>\$2,000m</b>

<sup>1</sup> Agglomeration relates to the benefits generated by firms and people locating in greater proximity, primarily due to reduced costs and productivity gains.

Table 3: Preliminary CBA Results: high land use scenario (Discounted, \$2021 millions)

	Option 1	Option 2	Option 4
<b>Viability metrics</b>			
NPV (excluding agglomeration)	-\$334m	-\$686m	-\$168m
BCR (excluding agglomeration)	0.90	0.79	0.94
NPV (including agglomeration)	\$697m	\$223m	\$278m
<b>BCR (including agglomeration)</b>	<b>1.20</b>	<b>1.07</b>	<b>1.10</b>
<b>Costs</b>			
<b>Total costs</b>	<b>\$3,500m</b>	<b>\$3,312m</b>	<b>\$2,781m</b>
<b>Benefits</b>			
Public transport – travel time benefits	\$740m	\$714m	\$624m
Public transport – incremental fare revenue benefits	\$319m	\$273m	\$226m
Private vehicle – travel time benefits	\$353m	\$245m	\$293
Private vehicle – travel time reliability benefits	\$21m	\$15m	\$19m
Private vehicle – reduction in vehicle operating costs	\$302m	\$203m	\$263m
Safety benefits	\$391m	\$261m	\$327m
Environmental Benefits - Harmful pollutant and CO2 reduction	\$97m	\$66m	\$84m
Health Benefits for additional walking trips	\$799m	\$720m	\$659m
Health Benefits for additional cycling trips	\$144m	\$130m	\$118m
Agglomeration	\$1,031m	\$908m	\$447m
<b>Total benefits</b>	<b>\$4,197m</b>	<b>\$3,535m</b>	<b>\$3,060m</b>

44 This analysis demonstrates that land intensification is required to provide a sufficient economic return on investment. As demonstrated by the Climate Implications of Policy Assessment (refer Appendix 5) the same is true for achieving meaningful carbon emission reductions.

- 45 In addition to this analysis, transport modelling, public feedback and assessment of construction emissions and emission reduction potential were used to assess the options and develop a recommended option.

**What is needed to determine the preferred option?**

- 46 The LGWM programme presented a Preferred Programme Option Report to the LGWM Board in May 2022. The LGWM programme recommended that a high capacity mass transit solution with a new tunnel through Mt Victoria and improvements at the Basin Reserve be taken through to a DBC. This is consistent with Option 1.
- 47 The LGWM programme also noted that emerging bus rapid transit technology that has not been modelled to date may be able to deliver more capacity. These alternatives could provide similar capacity to light rail transit at a lower cost. This warrants further investigation before a final decision on MRT mode is made. This investigation will be completed as part of the DBC process, with the LGWM programme aiming to complete it in advance of the final DBC in 2024, allowing for greater certainty of MRT mode.
- 48 The LGWM Board required more clarity before it could endorse an investment decision of this magnitude, including:
- 48.1 greater comfort that the intensified scenario is feasible in Wellington and that the required investment to activate this urban development is committed
  - 48.2 more clarity on the advantages and disadvantages of bus rapid transit and light rail transit, especially in relation to their respective capacity limits.
- 49 We recommend that Option 1 is investigated as part of the DBC, with Option 2 also retained for further investigation, especially in relation to MRT mode.

**Achieving the desired urban intensification will be critical**

- 50 The Ministry of Housing and Urban Development and Kāinga Ora are working with LGWM partners to identify opportunities to support the urban development opportunities associated with MRT.
- 51 The Government, WCC, and GWRC will have different options to enable, facilitate and deliver urban development outcomes associated with LGWM, including the use of regulatory tools (including planning, consenting, and funding tools). These should be worked through the IBC and DBC stages. The government, councils and other parties will need to align and coordinate activity to ensure clear and effective engagement around the use of any regulatory, investment or planning tools with mana whenua and the community.
- 52 While there are significant market headwinds currently, the Ministry of Housing and Urban Development anticipates over time the private market will respond to provide additional density through a future MRT corridor. There may be value for the government and councils to intervene where the private sector may struggle to provide this additional density, and to help achieve non-market outcomes such as affordable and public housing.
- 53 Land acquisition may be the most straight forward way to support keystone developments in locations close to MRT stops where fragmented sites limit the

ability of the private market to provide the desired density. This does not mean government or Wellington City Council must lead the development – it could acquire land to amalgamate it and then sell to an appropriate developer. There may be opportunities for land acquisition and partnering to achieve outcomes via the Kāinga Ora Land Programme or Ministry of Housing and Urban Development administered Land for Housing Programme. These have specific processes and will likely require Cabinet approval.

- 54 LGWM partners are considering the various options to plan and consent MRT infrastructure, and urban development related opportunities. This includes consideration of whether a Specified Development Project (SDP) under the Urban Development Act 2020 (UDA) could support delivery. Should LGWM partners want to pursue a SDP, the Kāinga Ora Board has discretion to select the project for assessment as a potential SDP under section 29 of the Urban Development Act. This would be the first step in a multi-stage process, which ultimately requires Cabinet sign-off to approve a SDP. Kāinga Ora staff that aren't involved in assessing potential SDPs, are providing technical input to LGWM as appropriate to support this work. We understand LGWM intend to have completed work by early 2023 to enable Kāinga Ora to consider whether to assess the project under section 29.

#### **What are the challenges to funding MRT and how can we address them?**

- 55 In 2019, Cabinet endorsed financing the MRT component of LGWM, with repayments made over 50 years, noting that fuel excise duty and road user charges would need to broadly increase with inflation.<sup>2</sup>
- 56 Utilising debt to finance long-term infrastructure has the benefit of matching costs to benefits over the lifecycle of the asset. This supports achieving intergenerational equity and allows adjustments to user charges and value capture to be gradual and equitable whilst maintaining the beneficiary pays principle. It is paramount there is sufficient confidence that future positive cash flows will eventuate to repay debt.
- 57 Financing repayments could be made from the National Land Transport Fund, but the fund is under pressure. Costs have increased since 2019, both for the MRT component estimates of LGWM and across land transport expenditure. Cabinet has had to approve a \$2 billion loan to allow Waka Kotahi to meet the level of investment required to advance the Government's priorities and commitments as set out in the Government Policy Statement (GPS) on land transport 2021<sup>3</sup>. Ongoing increases of fuel excise duty and road user charges would need to be made to repay any loan for the MRT component of LGWM, if the National Land Transport Fund were used in part or in whole
- 58 Given pressure on the National Land Transport Fund, funding the MRT component of LGWM outside of the National Land Transport Fund framework will need to be considered. Additionally, it has a more complex set of beneficiaries and has an elevated risk profile compared with projects traditionally delivered under the National Land Transport Plan process. Including bespoke governance and decision-making arrangements.
- 59 The significant cost of MRT makes it challenging for local government to fund a large share within current revenue settings. However, beneficiary-pays and other

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<sup>2</sup> CAB-19-MIN-0213.01

<sup>3</sup> (T2021/2088 / OC21 0673 refers)

funding principles suggest that local government contributes to the funding and financing of MRT.

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s 9(2)(f)(iv)

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s 9(2)(f)(iv)

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s 9(2)(f)(iv)

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**We recommend officials explore a national approach to funding MRT**

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In response to the issues outlined above and in recognition of the broad benefits of MRT I recommend Cabinet agrees that Treasury, Ministry of Transport, Ministry of Housing and Urban Development, and Waka Kotahi officials progress work on a national approach to funding MRT projects to ensure alignment.

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- 68 As there are currently multiple MRT projects under consideration, it is critical that we ensure equity across regions by applying a consistent approach to funding. This approach is necessary to provide certainty for MRT projects.
- 69 Developing a specific approach to mega projects, including MRT, is necessary as by their system shaping nature, conventional assessment processes struggle to fully capture the broad strategic shifts they create. Understanding and articulating this is important to justifying investment and allocating the mix of funding sources.
- 70 The development of a national approach to funding MRT will also consider and complement the Auckland Light Rail funding and financing policy workstream.
- 71 This national approach will include the development of MRT funding principles and a framework which should include things such as beneficiary identification, allocation of costs, fiscal responsibility, and funding tools.
- 72 We intend to work over the coming months and come back to Cabinet with worked through options for consideration in early 2023.
- 73 The Treasury notes that urban value uplift could be captured through alternative tools, and that a beneficiary pays model does not presume that the Crown should fund a significant portion of the costs - s 9(2)(f)(iv) Treasury officials note that there is a risk that the Crown may have to fund a large proportion of the costs of MRT if local authorities or alternative funding tools such as value capture and IFF are not used.
- 74 The Treasury also notes, given the scale and risk associated with this project, it is critical that this project proceeds through Treasury sponsored Gateway reviews. These reviews will help to ensure from an early stage that the project is being developed appropriately. It will be important as the project progresses that further comprehensive economic analysis of the marginal benefits and costs of each component of the project is undertaken, to ensure a clear understanding of value for money.
- 75 While we are supportive of the Gateway process, we are interested in how the Gateway methodology can best work for a project like this with system wide impacts and complexity.

## Risks

### *Cost escalation*

- 76 The Transformational components of the programme are the largest and most expensive. They are at an IBC stage of investigation only and there is cost uncertainty including potential for scope changes and cost escalation. To help mitigate this risk the programme has developed capital costs with assistance from professional cost estimators and these have been externally peer reviewed. Cost forecasts use the upper range cost estimate (P95) with inflation applied. Benchmarks have been applied to build up whole-of-life costs over a 30-year period, including financing costs. These capture the up-front capital investment and the longer-term impact on the budgets of funding partners.
- 77 Despite the above mitigations there is a significant possibility of cost escalation for the MRT and SHI options. Developing a better understanding of costs will be a key part of the DBC. Land acquisition will also become more expensive once the MRT

route is announced. Officials will provide advice on the revised estimates of cost through the DBC process, for Cabinet decisions as necessary.

*Public buy-in*

- 78 We consider there to be an overall risk to the momentum and public buy-in of the project if a signal is not provided to partners promptly. The ability to communicate direction on potential options as business case processes progress will be important to keep momentum up and ensure partners are aligned.

s 9(2)(g)(i)

[Redacted]

**Impact Analysis**

**Financial Implications**

- 80 Noting a preferred Transformational Programme option for continued investigation does not raise any immediate financial implications for baseline Crown funding. Funding for the next phase of work – undertaking the DBC – is in the process of being confirmed by LGWM partners. Further financial decisions from Cabinet will not be required until a funding and financing proposal is agreed as part of the DBC.

**Legislative Implications**

- 81 The decisions in this paper do not have legislative implications.
- 82 There are currently various Acts that may help to plan, consent, and deliver both the transport and urban development related opportunities and infrastructure. Current relevant legislation includes Resource Management Act 1991 processes, COVID-19 Recovery (Fast-track Consenting) Act 2020, the Public Works Act 1981, and the Urban Development Act 2020. These are being considered by LGWM partners now.
- 83 We will investigate and report back to Cabinet if the Auckland Light Rail Bill s 9(2)(f)(iv) should be broadened to cover national MRT projects, including LGWM.

**Regulatory Impact Statement**

- 84 The Regulatory Impact Analysis requirements do not apply to this paper as the decisions sought do not have implications for legislation.

**Climate Implications of Policy Assessment**

- 85 A Climate Implications of Policy Assessment has been completed as part of this Cabinet paper, see Appendix 5 for details.

**Population Implications**

- 86 Population implications have been considered as part of the multiple criteria assessment carried out by LGWM on the Transformational Programme options.

## Human Rights

87 There are no human rights implications arising from this paper.

## Consultation

88 Waka Kotahi, the Treasury, and the Ministry of Housing and Urban Development have been consulted on this paper. The Department of Prime Minister and Cabinet has been informed of this paper.

## Communications

89 Cabinet decisions will be announced in due course and my office will work with the LGWM partners to sequence the announcement.

## Proactive Release

90 We intend to release this Cabinet paper proactively in whole or in part within 30 business days.

## Recommendations:

We recommend that the Economic Development Committee:

- 1 **note** that significant progress has been made on Let's Get Wellington Moving since 2019, including programme establishment, the City Streets package, 3-year programme, major public consultation, and development of the Transformational Programme Indicative Business Case
- 2 **note** that pending additional detailed investigation, Option 1 (South coast light rail plus a new public transport tunnel) is emerging as the preferred Transformational Programme option
- 3 **note** that due to uncertainty about achieving urban intensification, it would be prudent to continue to explore bus rapid transit (Option 2 - Bus rapid transit to the South Coast and airport)
- 4 **endorse** taking Option 1 through to the Detailed Business Case stage, retaining Option 2 for further investigation
- 5 **note** that more analysis needs to be completed to test the feasibility of increased urban intensification in Wellington along the mass rapid transit corridor
- 6 **note** without the eventuation of the high land use scenario all Transformational Programme options will struggle to deliver a sufficient return on investment and carbon emission reductions
- 7 **note** that it is expected this project will go through the Treasury sponsored Gateway process
- 8 **agree** that Treasury, Ministry of Transport, Ministry of Housing and Urban Development, and Waka Kotahi officials will progress work on a national approach to funding mass rapid transit projects and report back to the Minister of Finance, the Minister of Housing, the Minister of Local Government and me
- 9 **note** that as mass rapid transit projects generate broad social, economic, and environmental benefits, there is a strong case for the Crown to make a significant funding contribution, with some local contribution to reflect urban benefits



**IN CONFIDENCE**

- 10 **note** that once a national approach to funding mass rapid transit projects is agreed, it will inform the agreement of a central-local government split of the mass rapid transit component of Let's Get Wellington Moving in early 2023
- 11 **note** that we will investigate if upcoming Auckland Light Rail legislation should be extended to cover national mass rapid transit projects
- 12 **agree** that we will make an announcement on mass rapid transit progress alongside Let's Get Wellington Moving partners.

Authorised for lodgement

Hon Grant Robertson

Minister of Finance

Hon Michael Wood

Minister of Transport

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## Appendix 1: Transformational Programme Options

Common elements included in all options:

- The 3-year programme
- City Streets Package
- Smarter Transport Network improvements

Table 3: Transformational Programme options

Option		1	2	3	4
Name		South coast light rail + new public transport tunnel	Bus rapid transit to the sea and skies	South coast light rail	South coast light rail via Taranaki St
Mass rapid transit/public transport improvements	SOUTH from Wellington Railway Station to Island Bay	<b>Light rail</b> Via waterfront quays, Kent/Cambridge, Basin, hospital, Berhampore.	<b>Bus rapid transit</b> Via waterfront quays, Kent/Cambridge, Basin, hospital, Berhampore.	<b>Light rail</b> Via waterfront quays, Kent/Cambridge, Basin, hospital, Berhampore.	<b>Light rail</b> Via waterfront quays, Taranaki St, Basin, hospital, Berhampore.
	EAST from Kent/Cambridge Terrace to Miramar and the airport	<b>Bus priority</b> Via dedicated public transport lanes through new Mt Victoria tunnel. Hataitai bus tunnel remains for local bus services.	<b>Bus rapid transit</b> Via dedicated public transport lanes through new Mt Victoria tunnel. Hataitai bus tunnel remains for local bus services.	<b>Bus priority</b> Via Hataitai bus tunnel.	<b>Bus priority</b> Via Hataitai bus tunnel.
Basin Reserve improvements		<b>No longer a roundabout</b> Arras Tunnel extended so that local traffic (light rail, buses, vehicles, and people) can travel over the northbound state highway.	<b>No longer a roundabout</b> Arras Tunnel extended so that local traffic (bus rapid transit, buses, vehicles, and people) can travel over the northbound state highway.	<b>No longer a roundabout</b> Arras Tunnel extended so that local movements (light rail, buses, vehicles, and people) can travel over the northbound state highway.	<b>Stays as a roundabout</b> Arras Tunnel is unchanged. Improvements made to the existing layout and the intersection at Adelaide Road.
Extra Mt Victoria Tunnel		<b>New tunnel</b> Combined with the existing tunnel provides: <ul style="list-style-type: none"> <li>• A dedicated walking and cycling path</li> </ul>	<b>New tunnel</b> Combined with the existing tunnel provides: <ul style="list-style-type: none"> <li>• A dedicated walking and cycling path</li> </ul>	<b>New tunnel</b> For people walking and cycling.  The existing tunnel remains one lane in	<b>New tunnel</b> For people walking and cycling.  The existing tunnel remains one lane in each

**IN CONFIDENCE**

	<ul style="list-style-type: none"> <li>• One dedicated bus public transport lane in each direction</li> <li>• One lane in each direction for all other vehicles.</li> </ul>	<ul style="list-style-type: none"> <li>• One dedicated public transport lane in each direction</li> <li>• One lane in each direction for all other vehicles.</li> </ul>	each direction for vehicles.	direction for vehicles.
Possible alignment of new Mt Victoria tunnel <sup>5</sup>	'Diagonal' from Paterson Street to the top of Wellington Road OR parallel to the existing Mt Victoria Tunnel		Parallel to the existing Mt Victoria Tunnel	

Whole Of Life Cost (WOLC) estimates the total cash impact on the budgets of the funding partners over a 30 year period.

This includes planning and delivering the projects, including the cost of the programme team, financing charges and ongoing costs.

This also includes operations and maintenance, replacing asset components as they come to the end of life, operating costs for the new MRT service, and an estimate of the lost revenue from Council owned on street car parking.

An assessment of the percentage of new assets was made to enable only the net increase to be recognised. This is also true of the service provision for MRT where only the net change to the costs and revenues of operating the public transport network is included, taking into account some bus services will be replaced by the MRT.

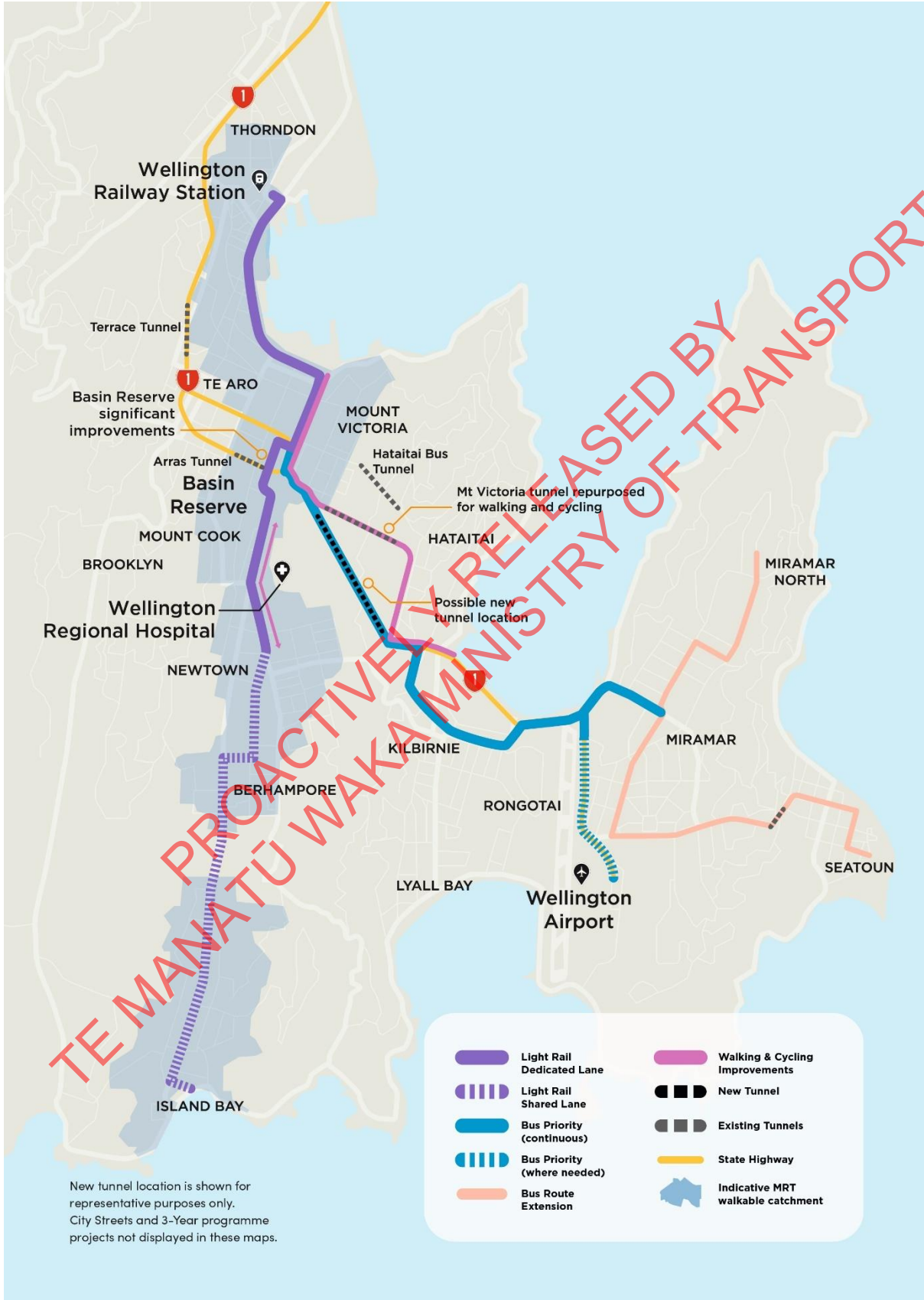
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<sup>5</sup>The alignment of an extra Mt Victoria Tunnel is yet to be determined and will be investigated in the next phase of Let's Get Wellington Moving – the DBC

## Appendix 2: Transformational Programme Options Maps

### Option One: South coast light rail + new public transport tunnel

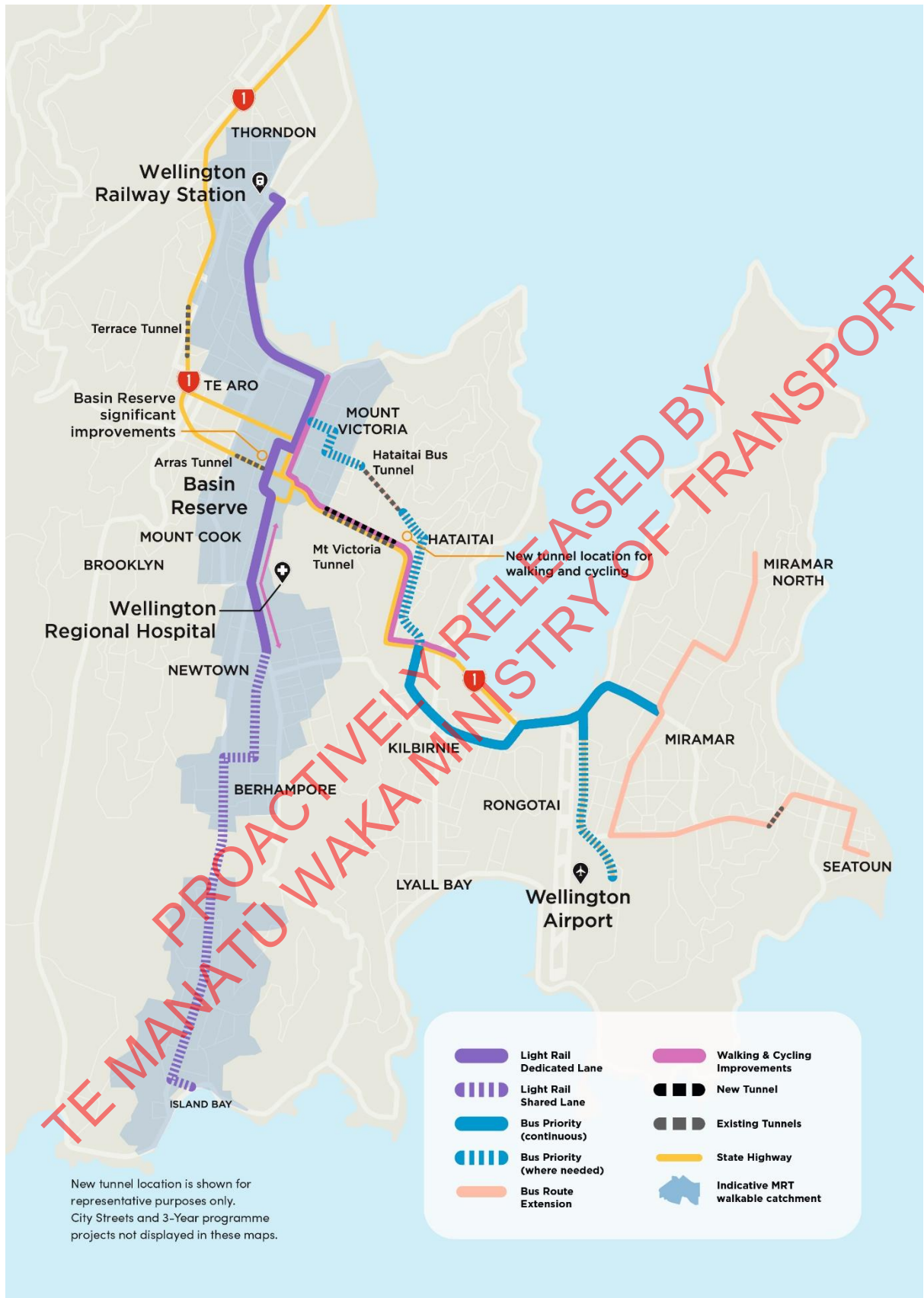


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Option Two: Bus rapid transit to the sea and skies



Option Three: South Coast light rail



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Option Four: South coast light rail via Taranaki St



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### Appendix 3: Transformational Programme Options Public Feedback Summary

Respondents are very aware of the housing shortage in Wellington and want to see it addressed. Most support MRT as helping to enable more housing intensification and urban development. Concerns were raised about the nature and quality of housing intensification and what this would mean for the community.

Many respondents see MRT as contributing positively to future environmental performance, carbon reduction and social and liveability outcomes. People favoured a healthier and more liveable city with more green spaces where people could gather. Better walking and cycling facilities were important.

Respondents had most to say on how to improve the type of public transport on offer in future. Respondents strongly support public transport that offers more people better connections to more places, more comfortably, frequently and reliably and with fewer transfers needed. Concerns were raised about reaching key destinations and the need for transfers to places such as the hospital. There was a preference from respondents for light rail transit direct to the airport.

Concerns were raised that MRT options seem to prioritise the southern and eastern suburbs over other parts of the city, and people queried the reasoning behind the proposed routes.

Respondents want an MRT system that could extend to other areas and encourage more urban growth and development. At the next stage of engagement, they would like more detail about construction staging and property impact.

More than half of the respondents support light rail transit because of its capacity (over 300 people per trip), reliability and frequency, as well as improved carbon performance.

The respondents who supported bus rapid transit did so largely because of its flexibility to be extended to more suburbs in the future. Others preferred bus rapid transit because it requires less investment and is faster to implement. Respondents also liked that bus rapid transit offers a quicker recovery time from a natural disaster.

There was a strong appetite for change and consistent support to:

- make it happen sooner
- deliver the best value
- get public transport right (do it once and do it right).

While respondents understand the need to reduce carbon emissions and increase housing, they want balance between principle and reality. For example:

- I can understand the MRT vision BUT it needs to be best value in terms of investment
- I can understand the need for more housing BUT what would intensification actually look like?
- I appreciate the benefits of Light Rail BUT it needs to be extended to other places
- I understand the need for a new tunnel BUT consideration needs to be given to the number of private vehicle lanes
- I can understand the benefits of MRT BUT it needs to be resilient and suit Wellington's unique terrain.



**Appendix 4: Multiple Criteria Assessment Scores: core land use scenario**

Investment Objectives						Environmental and Social Impacts						Design, Delivery and Operation			
Option	Liveability	Access	Carbon Emissions and Mode Shift	Safety	Resilience	Mana Whenua	Heritage and Archaeology	Social	Business Disruption and Outcomes	Landscape and Visual	Noise and Vibration	Contaminated Land	Engineering Difficulty	Property Difficulty	Scalability of Network and Services
2036 Do Minimum	0	-1	-1	-1	-2	-2	0	1	-1	0	0	0	0	0	0
<b>Base Scores</b>															
Option 1	2	3	3	2	1	2	-5	-3	1	-3	2	-3	-4	-5	3
Option 2	2	3	3	2	2	3	-5	-3	1	-3	3	-2	-4	-5	5
Option 3	3	2	2	2	0	2	-5	-2	0	-2	1	-3	-4	-5	3
Option 4	2	2	3	2	-1	1	-4	-3	0	-1	0	-2	-3	-4	3
<b>Sensitivity: Congestion Charging</b>															
Option 1	3	3	4	2	1	2	-5	-3	1	-3	2	-3	-4	-5	3
Option 2	3	4	4	2	2	3	-5	-3	1	-3	3	-2	-4	-5	5
Option 3	4	2	3	2	0	2	-5	-2	0	-2	1	-3	-3	-5	3
Option 4	3	2	4	2	-1	1	-4	-3	0	-1	0	-2	-2	-4	3

Score	Scoring Description
5	Substantial benefits and a high degree of confidence of benefits being realised and/or long term performance
4	High extent of benefits and confidence of benefits being realised and/or medium - long term
3	Good benefits and/or medium term
2	Low or localised benefits and/or short term
1	Very low benefits and/or very short term benefits
0	No change in benefits, impacts, or difficulties from current situation
-1	Few difficulties, very low cost, or low impact on some resources/value and/or very short term
-2	Minor difficulties, low cost, or minor impacts on resources/values and/or short term
-3	Some difficulties, low cost, or minor impacts on resources/values and/or medium term
-4	Clear difficulties, high cost or high impacts on resources/values and/or medium - long term
-5	Substantial difficulties, very high cost, or substantial impacts on resources/values and/or long term/permanent

Appendix 5: Climate Implications of Policy Assessment

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