



MINISTERIAL BRIEFING NOTE

Subject	Proposed Tolling Scheme for Penlink
Date	28 April 2022
Briefing number	BRI-2454

Contact(s) for telephone discussion (if required)				
Name	Position	Direct line	Cell phone	1 st contact
Brett Gliddon	General Manager Transport Services	s 9(2)(a)		✓

Action taken by Office of the Minister

- Noted
- Seen by Minister
- Agreed
- Feedback provided
- Forwarded to
- Needs change [please specify]
- Withdrawn
- Overtaken by events

RELEASED UNDER THE OFFICIAL INFORMATION ACT 1982

28 April 2022

Hon Michael Wood, Minister of Transport

Proposed Tolling Scheme for Penlink

Purpose

1. This briefing provides advice on a proposed tolling scheme for Penlink for your consideration. You have discretion to determine whether the proposal meets legislative requirements and also to decide whether to recommend, modify or decline a road tolling scheme.
2. This briefing is connected with the Penlink Implementation Business Case [BRI-2453 refers] which has been presented to Joint Ministers for decisions.

Executive Summary

3. The Penlink project was part of the original New Zealand Upgrade Programme (NZUP) announced in January 2020 and confirmed by Cabinet on 31 May 2021. The scope of the project as identified in the Establishment Report (2020) and baselining (2021) was a two-lane tolled road with an adjacent separated, shared walking and cycling path to provide travel choice for those living or visiting the Whangaparāoa peninsula.
4. Although only seven kilometres long, Penlink will be built over very difficult geological terrain, with a number of structures including a significant bridge crossing the Weiti River. The ongoing operations and maintenance for the road, and the Weiti bridge crossing, means that it will be more expensive over its life compared to most roads on our transport network. No provision has been made for these costs of maintaining the road, which will ultimately fall on the National Land Transport Fund (NLTF) in the absence of other arrangements.
5. Penlink will serve a very specific set of communities and it will perform a local/arterial road function rather than a national network function, which strongly indicates that a funding contribution to the ongoing costs of the road from those who use the road is appropriate. This contribution of funding can supplement land transport revenue and thereby help to reduce pressure on the NLTF.
6. The Waka Kotahi assessment of the Penlink project indicates that it is suitable for tolling under the Land Transport Management Act 2003 (LTMA) requirements. Tolling Penlink is expected to generate sufficient revenue (present value of net revenue is approximately \$49 million over a ten-year period) to cover the full costs of ongoing maintenance and operations of the road.¹
7. To address congestion on the Whangaparāoa Peninsula and the significant pressure being placed on the Silverdale interchange, the number of people travelling in private vehicles during peak times must be reduced. Reliable public transport is key to reducing this peak time private vehicle travel.

¹ Net revenue is gross revenue less Goods and Services Tax (15%) and the \$0.70 per trip that Waka Kotahi retains to cover the costs of its tolling business.

8. The proposed use of differential peak and off-peak toll rates will encourage the mode shift changes needed and support reliable public transport services as a result of reduced peak time traffic congestion. The use of differential toll rates to encourage behaviour change to achieve mode shift is consistent with ongoing work to review the land transport revenue system and projects involving transport pricing.² Differential toll rates, which encourage mode shift, support other key transport priorities, including reducing carbon emissions.
9. The Penlink tolling scheme would be the first to generate funding only for the purposes of operating and maintaining the toll road. It would also be the first tolling scheme to utilise both multiple toll points, due to the number of entry and exit points, and variable toll rates.
10. As outlined in the Penlink Implementation Business Case briefing [BRI-2453 refers], not tolling Penlink negatively affects the objective of encouraging public transport mode shift. Under an untolled scenario private vehicle peak time travel would be relatively more attractive than other modes, meaning the improved access would increase private vehicle travel, resulting in peak time congestion on the new road. This increase would negate any mode shift benefits associated with the new road and is inconsistent with the key transport priority of reducing carbon emissions.
11. Waka Kotahi consulted widely on a tolling proposal for Penlink and received full or conditional support from 37 percent of submitters (60 percent of submitters opposed the tolling proposal). Tolling is inherently unpopular and opposition to the proposal is to be expected, however since 2006, all engagement with the public on Penlink has consistently positioned the road as being proposed for tolling. This consistent reference to tolling reflects the reality that the local communities, that benefit directly from an expensive Penlink road, need to contribute to its costs.
12. Feedback from this consultation informed the final Penlink Tolling Scheme Proposal, including efficiency improvements to the scheme and reducing the planned toll points from three to two.
13. The final Tolling Scheme Proposal includes a toll point at the intersection with State Highway 1 (SH1) which will be managed through the use of cameras and a full gantry toll point between Duck Creek Road and Whangaparāoa Road. It proposes variable toll rates for light vehicles at the Whangaparāoa toll point of \$1 during off peak and \$2 during peak, and \$1 tolls at all times for the SH1 toll point. If travelling the full route, drivers would pay tolls at each toll point. Heavy vehicles would be charged at twice the rate of light vehicles. Public transport services would be excluded from the tolls.
14. Waka Kotahi recommends Penlink is delivered as a tolled road.

Background

15. The Penlink project was part of the original NZUP announced in January 2020. The scope of the project as identified in the Establishment Report (2020) and baselining (2021) was a two-lane tolled road with an adjacent separated, shared walking and cycling path to provide travel choice for those living or visiting the Whangaparāoa peninsula.
16. All engagement since 2006 between the relevant Road Controlling Authorities (RCAs) and the public on Penlink has consistently positioned the road as being proposed for tolling.
17. The benefits of Penlink include:

² This includes the Congestion Question in Auckland and the Dynamic Road Pricing project in Tauranga.

- Improving network resilience for the Whangaparāoa Peninsula community.
 - Supporting provision of housing within planned future urban development areas.
 - Supporting jobs and employment opportunities across the northern area of Auckland.
 - Achieving comparative travel times for public transport users compared with general traffic.
 - Improving network performance in order to facilitate economic activity, planned growth and transport mode choice in Silverdale, the Whangaparāoa Peninsula and the surrounding area.
 - Improving travel times and journey reliability through the land areas in the vicinity of the Silverdale interchange: Silverdale, Wainui, Dairy Flat, Orewa and the Whangaparāoa Peninsula.
18. In November 2021 you approved Waka Kotahi undertaking public consultation on a proposed tolling scheme for Penlink [BRI-2330 refers].
19. Construction of Penlink is expected to be completed by late 2026.

Legislative framework for tolling schemes

20. The LTMA permits the establishment of road tolling schemes to provide funds which can only be applied to the planning, design, supervision, construction, maintenance, or operation (or any combination of these activities) of the tolled road. A road can only be tolled if it is a new road.
21. RCAs may submit tolling proposals to you for consideration as the Minister of Transport. The Minister of Transport has sole responsibility in considering and recommending the establishment of a road tolling scheme to the Governor-General through an Order in Council. The Minister may consult with Cabinet colleagues before making such a recommendation.
22. In making a recommendation to the Governor-General, the LTMA requires you to be satisfied:
- that there has been adequate public consultation on the proposed tolling scheme,
 - with the level of community support for the proposed tolling scheme,
 - that a feasible, untolled, alternative route is available to road users, and
 - that the proposed tolling scheme is efficient and effective.
23. The LTMA provides you with discretion to:
- determine whether you are satisfied that the proposal meets the above criteria, and
 - to recommend, modify or decline a road tolling scheme.

Revenue pressure and government transport priorities

Tolling can generate funding from users of Penlink to pay for ongoing costs

24. The NZUP will see significant capital investments of \$8.7 billion into the land transport system. While the capital cost of NZUP projects will be fully covered by Crown funding, no provision has

been made for the ongoing operating and maintenance costs of these new investments, which will ultimately fall on the NLTF (in the absence of other arrangements).

25. As an RCA, Waka Kotahi assesses the potential suitability for tolling of all new roads that it is responsible for. Penlink satisfied Waka Kotahi internal assessments, which consider whether core legislative requirements can be met (e.g., new road, feasible untolled alternative routes are available) and the extent to which the proposed scheme is efficient, effective and represents value for money.
26. Although only seven kilometres long, Penlink will be built over very difficult geological terrain, with a number of structures including a significant bridge crossing the Weiti River. The ongoing operations and maintenance for the road, and the Weiti bridge crossing, means that it will be more expensive over its life compared to most roads, performing this local connection function, on our transport network.
27. Penlink will serve a very specific set of communities and it will perform a local/arterial road function rather than a national network function – strongly indicating that a funding contribution to the ongoing costs of the road from those who use the road is appropriate. This contribution of funding can supplement land transport revenue and thereby help to reduce pressure on the NLTF.

Tolling Penlink supports Penlink project objectives and Government's strategic priorities

28. To address congestion on the Whangaparāoa Peninsula and the significant pressure being placed on the Silverdale interchange, the number of people travelling in private vehicles during peak times must be reduced. Reliable public transport is key to reducing private vehicle travel.
29. The proposed use of differential peak and off-peak toll rates will encourage the mode shift changes needed and support reliable public transport services as a result of reduced peak time traffic congestion. Differential toll rates at peak and off-peak encourage people to consider when they will travel, by what route and by what mode. The use of differential toll rates to encourage behaviour change to achieve mode shift is consistent with ongoing work to review the land transport revenue system and projects involving transport pricing.
30. Key transport benefits and outcomes supported by tolling Penlink are:
 - Reducing journey time variability for public transport, making it a more attractive option and encouraging mode shift (GPS 2021 strategic priority regarding better travel options).
 - Producing additional carbon savings compared to an untolled Penlink through increased public transport uptake and negating induced demand (GPS 2021 strategic priority regarding climate change).
 - Improving the operation of Penlink (travel time savings and trip reliability), but not at the expense of existing routes.
 - Better supporting the achievement of Penlink project objectives through improved public transport services between Whangaparāoa-Silverdale and Whangaparāoa-Albany with more reliable journey times.
31. As outlined in the Penlink Implementation Business Case briefing [BRI-2453 refers], not tolling Penlink negatively affects the objective of encouraging public transport mode shift. Under an untolled scenario private vehicle peak time travel would be relatively more attractive than other

modes, meaning the improved access would increase private vehicle travel, resulting in peak time congestion on the new road. This increase would negate any mode shift benefits associated with the new road and is inconsistent with the key transport priority of reducing carbon emissions.

Summary of proposed tolling scheme for Penlink and Waka Kotahi assessments

32. The *Penlink Tolling Scheme Proposal* is attached in Attachment 1 for your consideration. The matters covered in the proposal document are intended to assist you in your consideration of whether the proposal meets the legislative requirements for tolling as prescribed in the LTMA.
33. A summary of the key points in the proposal document are outlined below.

Proposed tolling scheme design (Section 5 of the proposal document)

Toll points

34. With six different access points to Penlink (including the eastern and western ends), a number of options were considered in the development of the tolling strategy for Penlink. Waka Kotahi proposes a tolling scheme with two toll points for Penlink as shown in Figure 1:
 - A bi-directional full gantry between Duck Creek Road and Whangaparāoa Road - this location is referred to as toll point "A" in Figure 1.
 - Separate ground mounted cameras at each of the SH1 off and on-ramps - this location is referred to as toll point "R1" in Figure 1.

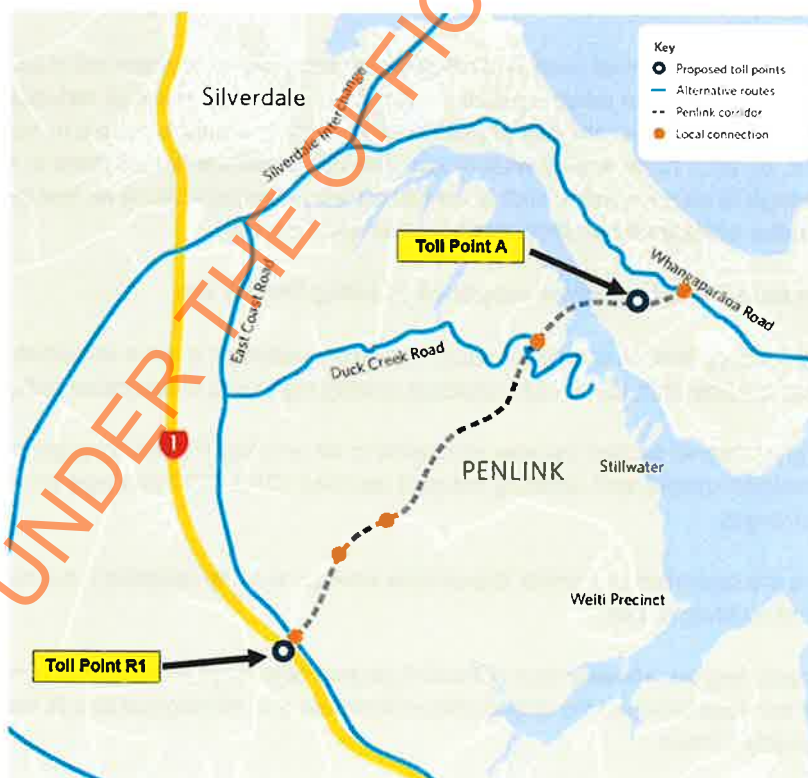


Figure 1: Proposed toll points on Penlink

35. Drivers would be charged each time they pass through a toll point – if both toll points are crossed, then two toll rates would be aggregated for the road user. A consistent approach is provided for those communities located along the corridor in that they will only pay when passing through either end of Penlink.

Variable toll rates for peak and off-peak travel

36. The proposed Penlink tolling scheme incorporates variable tolls for light vehicles:
- Toll point A - toll rates are proposed at \$2 during peak hours (weekdays 6am to 9am and 4pm to 7pm) and \$1 in the off-peak (including Saturdays, Sundays and Public Holidays).
 - Toll point R1 - the toll rate is proposed to be set at \$1 during both peak and off-peak.
37. The toll rates for heavy vehicles are proposed at twice the rate of light vehicles at peak and off-peak times on Penlink. Public transport buses using Penlink would be excluded from the tolls.
38. The combination of the two toll points and use of variable toll rates mean that the amount payable will depend on where road users enter and exit Penlink as well as when they travel (i.e. if travelling from Whangaparāoa to SH1 during peak hours then the road user will pay \$3 (\$2 +\$1), but if travelling at the same time from Whangaparāoa to East Coast Road, the toll will only be \$2). We expect that forecast traffic volumes at these proposed toll rates would generate the revenue required to pay for the full costs of ongoing maintenance and operations costs of Penlink (see paragraph 41). Comprehensive modelling has been undertaken in setting the peak and off-peak rates, and we are confident we have struck the right balance between achieving network benefits whilst still ensuring equity for users of Penlink.

Information to assist your consideration of legislative requirements (Section 6 of the proposal document)

Feasible, untolled route

39. The design of the proposed tolling scheme ensures that all road users have access to feasible, untolled routes. For most road users, the existing roads (Whangaparāoa Road and Duck Creek Road) would act as the feasible, untolled routes. In the case of Weiti Bay, a development south-west of Stillwater, its current access road from East Coast Road is built on the Penlink alignment and no other access roads currently exist.
40. The proposed location of toll points has been specifically designed to ensure Weiti Bay residents have the equivalent of a feasible untolled alternative route on Penlink itself through to East Coast Road in order to meet this LTMA requirement (i.e. no tolls are payable for use of Penlink between Link Road 2 and the East Coast Road access roundabout).
41. Provision of these safe alternative routes achieves an equitable outcome for road users that choose not to travel on a tolled Penlink.

Effectiveness and efficiency of the proposed tolling scheme

42. The proposed tolling scheme is expected to generate sufficient revenue to pay for the full operations and maintenance costs of Penlink. Waka Kotahi estimates that the present value of net revenue generated through the proposed tolling scheme would total \$49 million over a 10-

year period (2027 to 2036).³ The estimated present value of operations and maintenance costs of Penlink would total \$47 million over 10 years (2027 to 2036), and this includes repayment of financing that would be needed for the estimated \$20 million of capital costs for the tolling infrastructure (including tolling gantry, ramp cameras, software systems) and also an opportunity cost charge of 4 percent.⁴

43. Using toll revenue to pay for these costs would help to reduce pressure on NLTF as a call on those funds would not be needed.
44. Our assessment of the capital tolling infrastructure and the revenue expected to be generated indicates that this investment represents value for money. We consider that the capital costs are proportionate to the revenue generated and can be paid back within a 7-to-10-year timeframe.
45. Waka Kotahi will assess the toll rates regularly based on the revenue collected and the expected ongoing expenses for maintaining and operating the road as well as repayment of tolling infrastructure costs. As with other current toll roads, Waka Kotahi intends to retain \$0.70 per trip for administration of its tolling business. Regular reviews will ensure that the revenue and costs balance over time (e.g. although revenue is estimated to exceed the operations and maintenance costs by approximately \$2 million over a ten year period, toll rates will be managed over time to balance this out).
46. As with other current toll roads, Waka Kotahi retains \$0.70 per trip for administration of its tolling business. The tolled option has a BCR of 1.3, which represents a positive return on investment.⁵ While the untolled option was calculated at 1.5, it is not preferred by Waka Kotahi given that tolling better supports the Government's strategic transport priorities, network operations, Penlink project objectives and enables an alternative funding source for Penlink's ongoing operations and maintenance costs.

Public consultation feedback and Waka Kotahi responses

47. Section 7 of the proposal document describes the process, findings, and decisions following the public consultation process on the proposed tolling scheme.
48. From 17 January to 13 February, 2022, Waka Kotahi conducted public consultation on a proposed tolling scheme for Penlink. There was a significant level of participation from the community and resulted in 3,337 submissions being received.
49. Overall, 37% of submitters supported the proposal or offered conditional support if changes were made to the proposal, 60% of submitters did not support the tolling of Penlink (or tolling in general), and 3% of submitters were undecided. Most submitters who offered conditional support were concerned with the level of the proposed toll rates.
50. A detailed overview of the consultation process and the key themes of submissions are contained in the *Public Feedback Report: Penlink Tolling Scheme Proposal (Attachment 2)*.

Main reasons and themes included in the feedback

³ Net revenue is gross revenue less Goods and Services Tax (15%) and the \$0.70 per trip that Waka Kotahi retains to cover the costs of its tolling business.

⁴ We would seek the necessary funding from the NLTF and pay back the principal and an opportunity cost charge – this is currently 4% but may change depending on prevailing interest rates.

⁵ National BCR (excluding Wider Economic Benefits).

51. Key reasons for support included agreeing with the principle of 'user pays' and that tolling would help alleviate traffic and reduce carbon emissions.
52. The most common conditions of support for tolling Penlink included:
- Suggestions for lower and/or flat toll rates, or concessions for residents or frequent users, light vehicles or electric vehicles.
 - Applying tolls only if the road is built to have four lanes or includes a bus/public transport/transit lane.
 - Not tolling Stillwater residents to access SH1/East Coast Bays Road via Penlink or applying a toll at a single point only (i.e., Weiti Bridge).
 - Providing cheaper toll rates during off-peak to spread congestion.
53. Key reasons opposing the tolling of Penlink included:
- Operational costs should be funded by other sources of revenue (e.g. Regional Fuel Tax, NLTF).
 - Tolling places a financial burden on users of Penlink.
 - Tolling is unfair, particularly on residents in the project area.
 - Inconsistent use of tolling nationally to fund roads.

Positions taken by groups representing various interests

54. In addition to submissions from members of the public, Waka Kotahi also received submissions from a number of organisations, groups or people representing various interests.
55. In summary, the positions taken by these groups are as follows:
- NZ Automobile Association, Ia Ara Aotearoa Transporting New Zealand and Auckland Business Forum oppose tolling of Penlink.
 - Mana whenua, Fire and Emergency NZ, and two North Shore Ward Councillors supported the tolling of Penlink as proposed.
 - Business Whangaparāoa, Hibiscus and Bays Local Board, and the Stillwater Community Association offered support but only if changes were made to the proposal.

Waka Kotahi responses to feedback received

56. Public feedback has been carefully considered and Waka Kotahi responses to the main themes have been outlined in the proposal document.
57. In relation to the feedback we received from submitters that supported the proposal, our key points in response are as follows:
- We agree with the views from submitters that support the tolling proposal for Penlink. The user pays principle underpins our proposed approach to tolling and the design of the tolling

scheme for Penlink. There are clear benefits for users of Penlink (i.e., a well maintained and operating road) and it is reasonable in our view that users should pay for these benefits.

- We also agree that applying variable toll rates in the tolling of Penlink promotes mode shift as well as reduces congestion and carbon emissions. These are all important secondary benefits (with the primary purpose of tolling being to generate sufficient revenue to cover the relatively high costs of maintaining the new road).

58. In relation to the feedback we received from submitters that offered conditional support for the proposal, our key points in response include:

- After further consideration of the different tolling strategies available for Penlink, we agree with the responses that suggested the scheme could be simplified by reducing the number of toll points. We consider it is important that the design of the tolling scheme for Penlink is as efficient as we can make it, whilst still achieving the objective of generating sufficient revenue for the maintenance and operations costs of Penlink. To achieve this, we have reduced the tolling scheme in our proposal to two toll points (from the three toll points that were publicly consulted on).
- In addition, a change has been made to the Penlink tolling scheme proposal regarding how Waka Kotahi retains some of the revenue to cover costs relating to its tolling business (\$0.70 per trip rather than \$0.70 per toll point). Both of these changes have enabled Waka Kotahi to reduce the proposed toll rates from the levels we consulted with the public on.

59. In relation to the feedback we received from submitters that did not support the proposal, our key points in response include:

- While a large proportion of submitters do not support our proposal to toll Penlink (or tolling in general), we consider there is a strong user pays basis for tolling of Penlink. Based on our assessments, Penlink is a suitable road for tolling to be used to generate revenue to cover the costs associated with the maintenance and operation of the road. Tolling Penlink would help to reduce pressure on the NLTF.
- The secondary benefits that tolling offers to the Government's strategic priorities for transport (i.e., better travel options and climate changes) as well as the network benefits for Penlink and existing roads are additional reasons in support of tolling.

Comparison with existing toll schemes

60. To date, tolling in New Zealand has been linked to bringing forward the construction of new roads. The three tolling schemes currently operating in New Zealand (all of them on state highways) are designed to generate revenue to repay loans that enabled the construction of the roads to be brought forward. These tolling schemes all have a single toll point and apply flat toll rates for light vehicles and heavy vehicles (i.e., the same toll rate is applied regardless of time of day).

61. The Penlink tolling scheme would be the first to generate funding only for the purposes of operating and maintaining the toll road. It would also be the first tolling scheme to utilise both multiple toll points, due to the number of entry and exit points, and variable toll rates. While this may appear to be a novel approach when considered against the current tolling schemes, these elements of the proposed tolling scheme are permitted under the LTMA, and in our view, effectively achieve the primary objective of tolling (i.e., generating sufficient revenue to cover

costs associated with the toll road). It will also support secondary transport benefits and outcomes (e.g., variable toll rates provide the ability to optimise the operation of Penlink and the wider network).

62. As tolling imposes costs on road users, tolling is inherently unpopular. Levels of support for tolling schemes that bring forward construction of infrastructure tend to be higher given that the potential benefits of the infrastructure cannot be gained by stakeholders unless they pay for it. As there is no link to earlier construction for the Penlink tolling proposal, opposition to tolling is to be expected. Compared to public feedback on the Pūhoi to Warkworth tolling proposal (which was considered but not approved in 2021), which also did not bring forward construction of the road, there is a higher level of support for tolling of Penlink (i.e., full or conditional support for tolling of Penlink is 37% compared to only 22% for Pūhoi to Warkworth).

Consideration alongside the Penlink Implementation Business Case

63. The Joint Ministers have been presented with the Penlink Implementation Business Case [BRI-2453 refers]. The Penlink Implementation Business Case provides details on both a tolled and untolled option, including the effects of tolling on project objectives and wider Government strategic priorities for transport. The tolling proposal reflects the key findings from the Implementation Business Case rather than reproducing that level of detail in the tolling proposal.
64. The preferred option and recommendation in the Implementation Business Case is to toll Penlink. The Implementation Business Case has been drafted to enable approval from Joint Ministers independent of your decision on the Penlink Tolling Scheme Proposal, enabling the construction contract to be awarded irrespective of the tolling decision.
65. If Penlink is untolled, additional infrastructure will be required to partially offset the effects of additional peak-time vehicles and increased congestion, at an estimated additional cost of \$30 million above the P50 cost estimate of \$740m. The additional \$30 million is the estimated cost of ensuring the road shoulders could be used by buses to avoid the worst peak-time congestion and improve bus travel time reliability. However, modelling indicates the bus shoulder approach would not significantly support mode shift, as car trips would still be more convenient compared to public transport.

Next steps

66. We are seeking your consideration of the Penlink Tolling Scheme Proposal under the LTMA requirements. If you are satisfied with the proposal and you wish to proceed, a draft Order in Council would be required and we would work with Te Manatū Waka on a timetable for this to occur.
67. Te Manatū Waka would lead on the development of the Order in Council.

It is recommended that you:

1. **Note** Waka Kotahi recommends Penlink being delivered as a tolled road. Yes / No
2. **Consider** the Penlink Tolling Scheme Proposal under Section 48(1) of the Land Transport Management Act 2003. Yes / No
3. **Note** a separate decision on the Implementation Business Case will be considered by the Joint Ministers [BRI-2543 refers]. Yes / No



.....
Brett Gliddon

General Manager Transport Services

Date: 28 April 2022



.....
Hon Michael Wood, Minister of Transport

Date: 2022

RELEASED UNDER THE OFFICIAL INFORMATION ACT 1982