

Regulatory Impact Statement: Tolling Penlink

Purpose of Document	
Decision sought:	<i>To place a toll on Penlink under section 46 of the Land Transport Management Act 2003</i>
Advising agencies:	<i>Te Manatū Waka - Ministry of Transport</i>
Proposing Ministers:	<i>Hon. Michael Wood</i>
Date finalised:	<i>14th October 2022</i>
Problem Definition	
<p>Penlink's construction will be funded by the New Zealand Upgrade Programme. In the absence of any alternative, maintenance of Penlink would be funded from the National Land Transport Fund. Tolling has been proposed by Waka Kotahi – New Zealand Transport Agency (Waka Kotahi) to cover future maintenance costs.</p>	
Executive Summary	
<p>Penlink is a new 7km road that provides a link between State Highway 1 and the Whangaparāoa Peninsula, in the Auckland region. Its construction costs are being funded through the New Zealand Upgrade Programme and it's estimated to cost \$830 million to complete. On completion the road will save about 20 minutes of travel time between the North Shore and the Whangaparāoa Peninsula.</p> <p>Waka Kotahi is seeking a tolling order on Penlink to recover maintenance and tolling infrastructure costs. Tolling orders are legislated for under Section 46 of the Land Transport Management Act 2003. The Minister of Transport assessed the application against the statutory criteria set out in section 46 of the Land Transport Management Act 2003 and indicated he considers it to meet the threshold for tolling and requested the Ministry of Transport prepare the appropriate documentation for Cabinet decision for an Order in Council enabling the Tolling Scheme.</p> <p>Traffic modelling for the road indicates a toll would collect approximately \$12 million/year. If the road is tolled, 56% of the revenue collected would be used for back-office costs and tolling infrastructure. Without tolling Waka Kotahi estimate the road will be used 42% more, vehicle operating costs savings increase by 26% and monetised crash reduction benefits increase by 72%. However, Waka Kotahi also report that despite increased vehicle operating costs (i.e., fuel use) tolling results in fewer carbon emissions. and reduces congestion costs by 19%.</p> <p>Overall, there are fewer benefits to society when Penlink is tolled compared to leaving the road untolled. A summation of the of the monetised costs and benefits of tolling results in a Benefit Cost Ratio of 1.3 for Penlink compared to 1.5 for untolled, a 13% difference. If Wider Economic Benefits are included in the Benefit Cost Ratio of Penlink as a toll road is 1.4 compared to 1.7 if left untolled.</p> <p>Stakeholder engagement for the tolling proposal was undertaken as part of the Business Case. It received 3,337 unique responses from the community and a range of key</p>	

stakeholders. The majority were opposed to tolling, with 60% (2,002 people) stating that costs for maintenance and operations should be met in other ways.

Measured against the purpose of the Land Transport Management Act 2003 we assess the Penlink tolling application to be an effective policy but inefficient and with negative road safety implications.

Limitations and Constraints on Analysis

There are known limitations on the analysis we have been able to undertake:

- The scope of the options being investigated to satisfy the objective was constrained by the ministerial decision directing the Ministry of Transport to prepare a Cabinet paper for a Cabinet decision enabling tolling.
- The evidence contained in this RIS is primarily derived from the Implementation Business Case prepared by for the tolling order and therefore the proposal outlined in the Business case is the *de facto* scope.
- The operational policy decision to seek to recover the NLTF costs associated with this Penlink Crown Contribution to land transport has been treated as out of scope as there is insufficient relevant information.
- The Business Case, on which we have had to rely in assessing the welfare impacts of the options, has material inconsistencies and limitations:
 - The long evaluation period (sixty years) and low discount rate (4%) used in the net welfare assessment (cost to benefit analysis) puts considerable weight on uncertain benefits in out-years. A cautious approach has therefore been taken where there is modest difference between options (mode change) and/or the values are small (climate emissions).
 - It reports that tolling will encourage “more sustainable speed profiles” on Penlink and reduce carbon emissions (i.e., reduce fuel consumption), while increasing the distance travelled and vehicle operating costs at a network level (i.e., increase fuel consumption). These propositions appear inconsistent.
 - It does not investigate alternative options to raise maintenance revenue. Instead, it focused on tolling. There are several potential sources, such as Infrastructure Funding and Financing Levies or Targeted Rates, that we have not had opportunity to assess.
 - Only three parameters (capital cost, discount rate and appraisal period) modelled in the Benefit Cost Ratio calculations were subject to sensitivity analysis. Extending this analysis to other modelling parameters would provide greater insight into what were the influential assumptions and vulnerabilities in the modelling.
- The stakeholder engagement focused on eliciting feedback on a single tolling proposal and the impact of that proposal on those using the new road. It noted the traffic suppression effect of tolling but didn't clearly consider the larger effects of diverted traffic on the transport catchment.

Responsible Manager

Marian Willberg
Manager
Demand Management and Revenue
Te Manatū Waka - Ministry of Transport

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14th October 2022

Quality Assurance (completed by QA panel)

Reviewing Agency:	Te Manatū Waka Ministry of Transport
Panel Assessment & Comment:	<p>This Regulatory Impact Statement (RIS) has been reviewed by a panel of representatives from Te Manatū Waka Ministry of Transport and Waka Kotahi New Zealand Transport Agency.</p> <p>It has been given a 'meets' rating against the quality assurance criteria for the purpose of informing final Cabinet decisions.</p> <p>The RIS is complete and convincing, and the panel has suggested some improvements to clarity and conciseness. This review was subject to some agreed-upon additions to the alternative options, and context for some of the deaths and serious injuries modelling.</p>

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Section 1: Diagnosing the policy problem

What is the context behind the policy problem and how is the status quo expected to develop?

Waka Kotahi has proposed tolling Penlink to recover costs

1. A road linking the Whangaparāoa Peninsula and State Highway 1 (SH1) has been on Auckland transport schedules since, at least, 1981.
2. A direct link to the Whangaparāoa Peninsula (also known as Penlink) has the potential to reduce travel times between the Peninsula and the northern corridor of SH1 by approximately 20 minutes as well as addressing congestion in Silverdale and opening new areas of land for urban development.
3. The history of the Penlink proposal is inextricably linked to tolling. Prior attempts to progress the project have needed tolling to improve the Cost Benefit Ratio of the road and to provide additional funding to justify bringing the project forward in the planned schedule of work.
4. After several failed attempts to progress the road as a local road and then a State Highway, it was adopted into the \$8.7 billion New Zealand Upgrade Project (NZUP).
5. In June 2022, the final contracting arrangements for construction were completed and the project was gifted the name Ō Mahurangi by Mana Whenua.
6. Once completed, without tolling the operational and maintenance costs for the road would be drawn down from the National Land Transport Fund (NLTF).
7. Key details of the final form of the road are presented below:

Road details

Length	7km
Projected cost	\$830 million ¹
Road Classification ²	Rural Connector
Projected usage	25,500 daily trips (average)
Flyover video	https://www.youtube.com/watch?v=CV6tfChuxq0

Route



¹ As at June 2022 <https://www.nzta.govt.nz/projects/penlink/>

² Using NZTA's One Network Road Classification framework (see: <https://www.nzta.govt.nz/roads-and-rail/road-efficiency-group/projects/onrc/>)

8. Waka Kotahi New Zealand Transport Agency (Waka Kotahi) has proposed tolling Penlink to recover maintenance and tolling infrastructure costs. The tolling scheme design they proposed is summarised in the above route map.
9. The Minister of Transport (the Minister) assessed the application against the statutory criteria set out in section 46 of the Land Transport Management Act 2003 (LTMA) and has indicated he considers it meets the threshold for tolling. He requested Te Manatu Waka the Ministry of Transport (the Ministry) prepare the appropriate documentation for Cabinet decision for an Order in Council enabling Tolling.

Tolls are an established way of raising additional transport revenue under existing settings

10. Under the LTMA, to toll a new road, the Minister must 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
 - that the proposed tolling is efficient and effective.
11. The statutory criteria provides the Minister with broad discretion in recommending an Order in Council for tolling. Although toll revenue can only be applied to the toll road – for its construction, operation, and maintenance.
12. There are also tolling provisions in other legislation, including:
 - the Local Government Act 1974 allows the Minister of Local Government (by notice in the Gazette) to authorise a council to establish toll gates on any bridge, tunnel or ferry
 - the Land Transport Act 1998 provides a road controlling authority to make bylaws, including the power to toll any class of heavy vehicles.

Work is underway to shape the future revenue system

13. Our dedicated (hypothecated) land transport revenue system raises revenue from road users. The three major levers are:
 - Distance and weight-based Road User Charges (RUC) system for diesel and heavy vehicles. RUC raises about 44% of the NLTF and costs about 5% of the revenue collected for its administration.
 - Fuel Excise Duty (FED) applied on the importation of vehicle fuels. FED raises about 51% of the NLTF and costs less than 0.04% of revenue raised to administer.
 - Motor Vehicle Registrations (MVR) and licensing applied at the point of sale and annually to every vehicle on the road. MVR raises about 5% of the NLTF.
14. Tolling makes a relatively minor (0.4%) revenue contribution to the NLTF. Approximately \$17 million p.a. is raised from the three toll routes in the State Highway network: Tauranga Eastern Link; the Northern Gateway; and Takitimu Drive in Tauranga. Tolling proposals often meet resistance because of the modest revenue raising ability, the relatively high administrative costs, and the traffic diversion tolls cause.
15. These previous tolling schemes are aiming to repay capital funding provided by the Crown that meets about half of their construction cost. Maintenance costs on these tolling schemes are being met by the NLTF. So, what changed?
16. There are developing issues around the long-term sustainability of the NLTF. The transition to a lower emissions transport system, and the desire to make major investments, are presenting challenges for the way we fund land transport. To address these, and other challenges in the revenue system, the Ministry is undertaking a broad programme of work to develop a replacement revenue system.

17. Notably, work is at an advanced stage to amend the LTMA to enable road pricing in our cities to alleviate traffic congestion. This would empower Ministers to approve congestion charging proposals made by local Governments seeking to implement it. Congestion charging shares characteristics to road tolling insofar as it applies a price lever for the use of a road; the key difference is that congestion charging applies this charge differently depending on the level of congestion.

What is the policy problem or opportunity?

18. The NLTF is under pressure to deliver against the increasing expectations to maintain and expand the network. Currently, the NLTF collects approximately \$4.3 billion p.a.³. The majority is used to maintain existing levels of service. Increasing expectations for the NLTF (e.g., decarbonisation), rising procurement costs and funding reprioritisation (e.g., due to COVID-19) means that there is limited headroom for additional maintenance load.
19. Prior to the NZUP programme Penlink was a high priority State Highway project under the Auckland Transport Alignment Project (ATAP) and was to be funded from the NLTF and delivered from 2026. The NZUP programme replaces the nominal NLTF capital funding for Penlink and therefore releases this for other uses.
20. Generally, it is prudent to give maintaining existing assets priority over investment in new assets. In effect, fit for purpose maintenance and public transport services have first-call on available funds. Any increase in maintenance or service costs reduces the discretionary funding available for improving the network.
21. Only new roads can be tolled under the Land Transport Management Act 2003. Without tolling, Penlink's maintenance costs will impact on new capital projects able to be funded from the NLTF.

What objectives are sought in relation to the policy problem?

22. The primary objective of the tolling scheme is to collect an additional source of revenue, within the current legislative settings, that can contribute to the cost of tolling infrastructure and maintenance of the road.
23. There are additional and subordinate objectives including: mitigating carbon emissions; diversifying the back-office costs for Waka Kotahi's tolling system; incentivising public transport use and suppressing induced traffic.

³ actuals, from the 2021 Half-Yearly Economic and Fiscal Update

Section 2: Deciding upon an option to address the policy problem

What criteria will be used to compare options to the status quo?

24. The following criteria is from the purpose of the LTMA (set out in section 3) and will be used to evaluate options for resolving the primary problem:
- **Effective:** the extent to which the option is likely to contribute to meeting the objective, as well as broader Government priorities such as Hīkina te Kohupara pathway to decarbonising transport.
 - **Efficient:** the scale of cost and equity impacts associated with implementing and operating the option. The degree to which the option results in increased costs and/or impacts on transport access for different groups, and to what extent are additional costs focused on those who benefit.
 - **Safe:** the impact on road safety and health.

What scope will options be considered within?

25. The Minister directed the Ministry to progress work on the statutory implementation of a toll order for Penlink. The proposal relating to the toll scheme is explored further in the next section. For the purposes of this section a comparison is made between Penlink in its tolled and untolled (status quo) forms.
26. The particulars of the tolling option (e.g., camera placement and toll rates etc) are limited to what was described in the tolling proposal in the Penlink: Business Case report (ImBC) and which was considered by the Minister.

What options are being considered?

Public consultation was limited to one proposal

27. From 17 January to 13 February 2022, Waka Kotahi undertook a public consultation on the tolling proposal outlined in the ImBC.
28. The public consultation included details of the tolling infrastructures, the roading details and the different toll prices for peak and off-peak hours. It received 3,337 unique responses from the community and a range of key stakeholders. The following points are a high-level summary of the feedback received:
- 37% (1,235 people) support tolling Penlink. With 20.5% (686 people) supporting it as it is proposed in the ImBC and 16.5% (551 people) support tolling but with changes to the proposal.
 - 60% (2,002 people) of respondents think costs for maintenance and operations should be met in other ways to tolling.
29. Suggestions were made by respondents about what kind of tolling they would support. 16.5% of all submissions (551 responses) expressed conditional support if changes were made that include:
- Lower and/or flat toll prices
 - Fewer tolling points
 - Peak and off-peak toll prices changes
 - Concession rates for residents and frequent users of Penlink.

Our analysis is limited to tolling Penlink

30. This Regulatory Impact Statement (RIS) is constrained to analysing one option (tolling) because:

- Waka Kotahi consulted on a single proposal and the only information supplied to the Ministry relates to that proposal.
- The Minister directed the Ministry to prepare the necessary documents for a Cabinet decision on the tolling proposal. This RIS is a component part of the requisite documentation for that decision.

31. The following sections describe the options analysed:

Option One – Untolled (status quo)

- The construction of Penlink will go ahead as planned, using NZUP funding.
- On completion future maintenance costs (c. \$3.1M/p.a., see annex 3) will be drawn down from the NLTF using existing levers to raise additional revenue, or making trade-offs between activity classes, if needed.
- The additional revenue load on the NLTF equates to approximately 0.062 cent/l p.a., increase in FED and an equivalent increase in RUC.

Option Two – Tolled

- The construction of Penlink will go ahead as planned, using NZUP funding.
- Tolling infrastructure and camera points are installed at interchanges between Penlink and SH1, Duck Creek Road and at the proposed Ara Weiti (bridge) road entrance. The estimated capital cost of this would be approximately \$18.7M.
- The toll rates for light vehicles will be a \$3 end-to-end during peak periods and \$2 during interpeak periods. Heavy vehicles will pay double. Motorists entering Penlink via one of the four interchanges between the tolling points and passing through tolling point at the western end of Penlink they would be subject to a \$1 toll. If motorists pass through the tolling point at the eastern end of Penlink they would be subject to a \$2 toll at peak times and a \$1 toll at off-peak times.
- Once established, the operating costs would require approximately \$2.8M p.a. This is to meet the Waka Kotahi standard for tolling and to deliver an “end-to-end” technology solution for toll processing. This would support the delivery of a back-office verification, processing and issuance of toll charges, and associated customer interface.
- Travel between interchanges at the proposed Link roads and the East Coast Road would remain untolled to ensure there is a free route for vehicles that have no alternative.
- Revenue raised through tolling, estimated to be approximately \$12M p.a., is ring-fenced for the maintenance of the road and operation of the tolling scheme. If maintenance requirements exceed the amount collected from tolling, then funds from the NLTF will be drawn down.
- Toll rates would be periodically reviewed by the Waka Kotahi board every five years. The review will forecast operation and maintenance costs for Penlink, and toll rates will be adjusted depending on revenue requirement and forecast usage.

32. A range of alternative options to satisfy the primary objective are not included in this RIS. They were not included in the ImBC and were not considered by the Minister prior to directing the Ministry. These options are described in Annex 1 and include: value capture; rating adjustments; betterment levies; and changes to taxation and spending.

How do the options compare to the status quo/counterfactual?

	Untolled	Tolled	Supporting evidence
Effective the extent to which the option is likely to contribute to meeting the policy objective, as well as broader Government priorities	0	+	<ul style="list-style-type: none"> ✓ Tolling is expected to raise c. \$12.4M p.a. in 2026/27, rising to \$18.7M p.a. by 2035/36 ✗ Major or unexpected renewals would be funded through the NLTF and prioritised against other projects – Peak and off-peak charges could influence travel behaviour and reduce congestion on the Penlink corridor, although the position of the toll cameras could divert congestion to other parts of the network ✓ The ImBC indicates tolling creates \$6M in monetised Greenhouse Gas reduction (corresponding to between 6,000 TCO₂ in 2028 to 2,500 TCO₂ in 2038) ✓ Tolling might contribute to a small increase in public transport use
Efficient the scale of cost and equity impacts associated with implementing and operating the option	0	-	<ul style="list-style-type: none"> ✓ Potential travel time savings offers good value for money for the toll. – Some beneficiaries of the road will pay for it, others won't ✗ Benefit Cost Ratio (BCR) of the road is 13% lower when tolled (1.3) compared to untolled (1.5). If wider economic benefits are included, then the BCR for the road is 18% lower when tolled (1.4) compared to untolled (1.7) ✗ Auckland's congestion charging model could see motorists pay between \$1.50-3.50 per trip to access all of Auckland's the motorway network whereas the Penlink toll would be between \$2-3 per trip for a 7km road ✗ Without tolling the road would be used 42% more - with corresponding savings in travel distance, travel time, and vehicle operating costs ✗ Induced travel caused by an untolled route is more than offset by the extra travel caused by traffic being diverted off Penlink by tolling ✗ 56% of revenue collected in the first 10 years of the scheme will be used for tolling infrastructure and administration
Safe the impact on road safety and health	0	-	<ul style="list-style-type: none"> ✗ Traffic modelling indicates a 72% increase in the monetised disbenefits associated with road traffic crashes when tolled ✗ An additional death or serious injury is forecast every five years with tolling
Overall assessment	✗ <u>The status quo delivers the highest net benefits to society for the investment</u>		

Key:
 + better than the status quo
 0 about the same as the status quo
 - worse than the status quo

What option is likely to best address the problem, meet the policy objectives, and deliver the highest net benefits?

33. After considering the tolling proposal against the statutory tests, we understand the Minister directed the Ministry to progress the tolling application because:
- the revenue from tolling can alleviate maintenance pressures on the NLTF;
 - its contribution to demand management; and
 - a desire to make the costs of roading infrastructure more transparent.

The Ministry's preferred option is Option One – untolled (status quo)

The status quo is preferred as it:

- **Provides the highest net benefit to society for the \$830M NZUP investment.** Calculating the total monetised costs and benefits of tolling results in a Benefit Cost Ratio of 1.3 for Penlink compared to 1.5 for untolled, a 13% difference. If Wider Economic Benefits are included in the Benefit Cost Ratio of Penlink as a toll road is 1.4 compared to 1.7 if left untolled (refer Annex 2).
- **Reduces network impacts.** A toll may mitigate some of the induced demand created by Penlink but at a network level the toll has a negative effect. Without tolling the road would be used 42% more, with corresponding savings in travel distance, travel time, vehicle operating costs, and emissions across the network. The travel induced by an untolled route is more than offset by the extra travel caused because of traffic being diverted off Penlink by tolling onto a longer existing route. Mode shift to walking and cycling is “largely unaffected” by tolling and public transport uptake is modelled to change by approximately 150 passengers per day⁴.
- **Better supports the Government's commitment to the Road to Zero strategy.** The ImBC calculated a 72% increase in the monetised disbenefits associated with road traffic crashes when Penlink is tolled. Including an additional death or serious injury every five years when tolling is in place.
- **Is fairer to the Whangaparāoa Peninsula residents.** It is inequitable to single out Whangaparāoa motorists to pay twice for the costs of maintaining and operating a road that services the community. The design of the tolling scheme creates further inequities when future residents along the corridor will be able to use the road without paying a toll.
- **Incurs fewer collection costs.** Compared to other land transport revenue streams tolling Penlink is inefficient - with 56% the revenue collected over the first 10 years of the scheme spent on its collection (i.e., infrastructure and back-office costs). This compares unfavourably with potential increases in FED and RUC to recover equivalent amounts of revenue.

⁴ Refer page 44-45 of the ImBC.

What are the marginal costs and benefits of the option?

34. The table below sets out an analysis of the Option 2 – Tolled.

Affected groups	Comment.	Impact	Evidence Certainty
Additional costs of the preferred option compared to taking no action			
Whangaparāoa Peninsula residents	<p><i>Construction (\$11m) and collection costs (\$120m).</i></p> <p><i>Additional network impacts:</i></p> <ul style="list-style-type: none"> – <i>reduction in travel time (\$5m);</i> – <i>Trip reliability (\$1m);</i> – <i>Crashes (\$13m); and</i> – <i>Vehicle operating costs (\$44m).</i> <p><i>Wider economic disbenefits associated with reduced agglomeration (\$14m)</i></p>	<i>Medium</i>	High
Ministry of Transport	<i>Costs associated with the Ministry's stewardship role</i>	<i>Low</i>	High
Total monetised costs	<u>\$208 million</u>		
Non-monetised costs	<p>Privacy - tolling required automated numberplate recognition which impinges on people's right to travel without surveillance.</p> <p>Business disruption - creating a diversion could reduce foot traffic and incidental visits</p>	<i>High</i>	<i>Low</i>
Additional benefits of the preferred option compared to taking no action			
Local residents (Current and future)	Improving congestion (\$19m) and reduced carbon emissions (\$6m)	<i>Low</i>	<i>High</i>
Total monetised benefits	<u>\$25 million</u>		
Non-monetised benefits	<i>None</i>		

Section 3: Delivering an option

How will the new arrangements be implemented?

35. If a tolling order is imposed on Penlink it needs to be in place before the road is opened. Currently, project completion is estimated to be by the fourth quarter of 2025.
36. The toll order will be brought into effect via an Order in Council given assent to by the Governor General. The toll order will contain some preconditions that need to be satisfied prior to the commencement of tolling on Penlink.
37. The Ministry is working with Waka Kotahi on the form of these preconditions and the mechanism by which they will be satisfied. Although, at the time of writing, this work isn't finalised, we envisage the preconditions will stipulate that Waka Kotahi sets out in a report to the Minister details of the following matters at least 10 weeks prior to tolling commencing:
 - The service standard obligation to road users;
 - The method of publicising the toll in advance of the road opening;
 - The signage and other information that will be used to inform drivers approaching the road, of the toll and options for paying;
 - A technical description of the proposed components of the toll collection system and key performance indicators, inclusive of error rates, revenue levels and health and safety issues;
 - The structure of the administration fees for all payment methods and all penalty fees;
 - The continued existence of a feasible alternative route
38. Preconditions will also include clauses relating to the ongoing function of the toll road, including
 - setting toll tariffs within the maximum limit of \$6 and with adjustments being made on the basis of five-yearly forecast of costs and revenue;
 - the ability to set different rates for different vehicles and travel during different times of day. The ability to provide exemptions and toll-free days; and
 - toll collection mechanisms.

How will the new arrangements be monitored, evaluated, and reviewed?

39. The Toll Order will also contain on-going conditions to ensure the intent of the tolling remains and that the public aren't disadvantaged by the toll. As with the preconditions, this is a work in progress, but we envisage it will include regular public disclosure and reporting to the Minister of:
 - actual traffic volumes compared to forecast traffic volumes for each class of vehicle:
 - actual toll revenue compared to forecast toll revenues:
 - the ongoing status of the alternative route:
 - a network utilisation performance report to include an analysis of the response of traffic to tolling, any traffic management method used to vary the response, and other steps taken to implement the demand management plan;
 - confirmation that the toll operator continues to offer at least one method of paying the toll that does not record personal information in relation to the person paying the toll; and

- if there has been a significant change to that method of payment since the previous annual report to the Minister, a description of the new method.
40. These reports will be closely monitored by the Ministry as part of our regulatory and system stewardship function.

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Annex 1: Alternative maintenance revenue sources

Mechanism	Act	Comment
An adjustment to the rate of PED and RUC	LTMA	Available to the Crown only. A 0.062c/l p.a. increase in PED and a corresponding increase in RUC
Windfall gains tax	Income Tax Act 2007	Available to the Crown only. Section CB 14 of the Income Tax Act provides that a capital gain on land sold within 10 years of acquiring it is taxable as income tax, if at least 20% of the capital gain is attributable to a change in planning rules or the granting of a consent
Crown contribution	Budget	Available to the Crown. An ongoing appropriation toward the maintenance costs of Penlink
National Land Transport Fund	LTMA	Waka Kotahi use some of the \$830M that was taken off its capital expenditure pipeline to help fund the circa. \$3.1M/p.a. maintenance needs
Special purpose vehicle	Infrastructure Funding and Financing Act 2020	Section 10(1) enables all crown entities to enter a special purpose vehicle. Authorises the imposition of a levy on all properties that benefits from an infrastructure investment, with the levy payable to the special purpose vehicle as a debt
Tolling a bridge tunnel or ferry	Local Government Act 1974	Available to Councils only. Applicable to the bridge at the western end of Penlink
General Rating adjustment	Local Government (Rating) Act 2002	Available to Councils only. An increase in general rates to reflect costs faced by a Council
Targeted rates	Local Government (Rating) Act 2002	Available to Councils only. A rate to recover the Council costs from the are served by an investment. Typically, targeted rates apply to shopping centres to fund amenity improvements in the streets within the centre or to the properties served by a package sewerage plant. In Auckland a targeted rate applies to the urban area to help fund public transport
Development contributions	Local Government Act 2002	Available to Councils only. Councils can recover costs imposed on the network by development. The contributions are made in accordance with a policy established by Councils.
Financial contributions	Resource Management Act 1991	Available to Councils only. Councils can set conditions on any development that needs a planning consent requiring a contribution toward the costs of public infrastructure required to services the development covered by the consent
Betterment levy	Local Government Act 1974	Available to Councils only. Provision is made for Councils to charge betterment where a change in zoning results in a property value increase.
Road tolling bylaw on heavy vehicles	Land Transport Act 1998	Available to all Road Controlling Authorities except Waka Kotahi. Limited to heavy vehicles

Note: Presented in order from central to local availability.

Annex 2: Monetised impact of tolling

	Untolled	Tolled
Benefits		
Travel time	\$797m	\$792m
Congestion reduction	\$100m	\$119m
Vehicle operating cost reduction	\$165m	\$121m
Trip reliability	\$52m	\$51m
Crash reduction	\$31m	\$18m
Alternative mode increase	\$10m	\$10m
CO ₂ reduction	\$0m	\$6m ⁵
Total Benefits	\$1,156m	\$1,116m
Wider Economic Benefits		
Agglomeration	\$124m	\$110m
Other Wider Economic Benefits	\$47m	\$47m
Total Wider Economic Benefits	\$171m	\$157m
Costs		
Construction costs	\$712m	\$703m
Maintenance costs	\$69m	\$69m
Toll collection costs	\$0m	\$120m
Total Costs	\$781m	\$892m
Benefits over costs		
National welfare benefits (BCR)	1.5	1.3
BCR + Wider Economic Benefits	1.7	1.4

Note: Source - Table 18 - ImBC

⁵ MoT observation – appears to be inconsistent with calculated benefits to vehicle operating cost reduction

Annex 3 Estimated Maintenance Costs

Regardless of whether Penlink is tolled or not it will require maintenance in the future. Waka Kotahi have advised that a road of Penlink’s loading will require the following maintenance activities.

Activity	Cost	unit	Frequency
Regular maintenance	\$25	\m ²	Annually
Periodic maintenance	\$20	\m ²	Every 5 years
Bridge inspection	\$100,000		Inspect biannually
Resealing	\$35	\m ²	Every 8 years

Refer Table 16 - ImBC⁶

We expect the Penlink to be 13m wide and 7km in length meaning that the gross area is 91,000 m². Using the data presented above we can estimate maintenance funding requirements using the equation below.

$$\text{Maintenance revenue required} = \sum (\text{Road Area} \times \text{Cost of Activity}) / \text{Frequency}$$

Which results in the following revenue requirements.

Activity	Funding
Regular maintenance	\$2,275,000
Periodic maintenance	\$364,000
Bridge inspection	\$50,000
Resealing	\$398,125
Annual Maintenance Revenue Requirements	\$3,087,125

⁶ “Bridge -heavy maintenance repair” in Table 16 of the ImBC is incidental and not included in our maintenance calculations